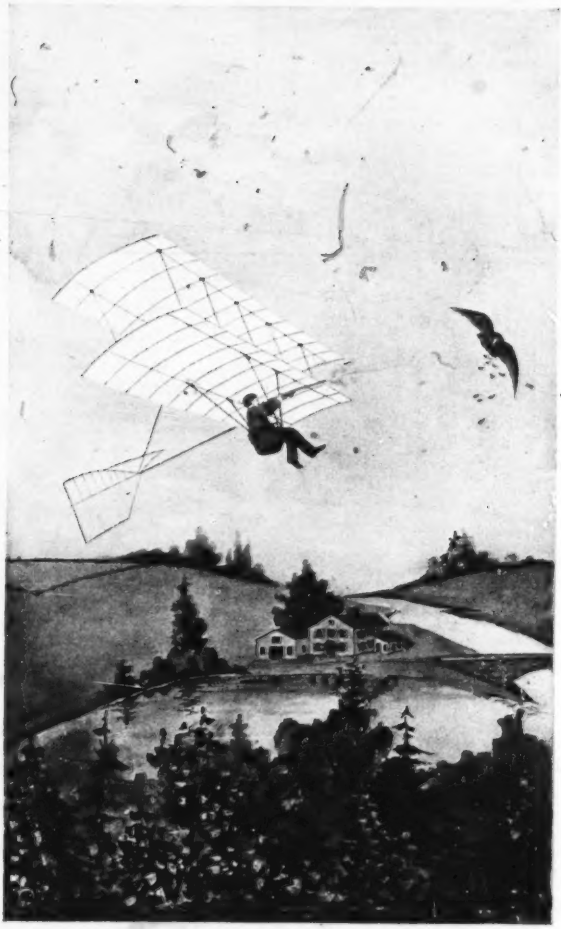

THE GREAT AWAKENING

The Story of the Twenty-second Century

BY

ALBERT ADAMS MERRILL

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To My Mother,

WHO WAS PERHAPS THE

ONLY ONE WHO ENCOURAGED ME

TO UNDERTAKE THE STUDY OF THE GREAT SOCIAL QUESTIONS
WHICH NOW CONFRONT US,

THE SOLUTION OF WHICH

IS NECESSARY

TO THE HAPPINESS OF HUMANITY,

I

AFFECTIONATELY

DEDICATE THIS BOOK.

"Thought is the creator and vivifier of all human affairs. Actions, facts, and external manifestations of every kind, often triumph for a while; but it is the progress of ideas which ultimately determines the progress of the world. Unless these are changed, every other change is superficial, and every improvement is precarious."

* * * * * * *

"But when it was once clearly understood that gold and silver are not wealth, but are merely the representatives of wealth; when men began to see that wealth itself solely consists of the value which skill and labor can add to the raw material, and that money is of no possible usé to a nation except to measure and circulate their riches; when these great truths were recognized, all the old notions respecting the balance of trade, and the supreme importance of the precious metals, at once fell to the ground."

HENRY THOMAS BUCKLE.

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The Great Awakening

The
Story of the Twenty-second Century

CHAPTER I.

I FIND MYSELF IN THE TWENTY-SECOND CENTURY.

In the following pages I have endeavored to relate as accurately as possible my experiences with Professor Harding, who was born in Boston in the year 2153, was highly educated and thoroughly grounded in the economics and history of the time.

You must know that I had lived in the nineteenth century — the year of my death being 1901 — but that, owing to some strange mistake, the reincarnation of my soul had been neglected, and when I appeared again on earth, my body was already mature and full-grown. Thus a soul, an intelligence used to nineteenth century conditions, found itself confronted with the civilization of the twenty-

second century. In ordinary reincarnations the soul enters the body of a babe, and early training destroys most of its knowledge of the past while preparing it for the new life; but while I knew nothing of my surroundings — the great space of time following my death being a perfect blank — my knowledge was wholly confined to the conditions of my former existence. Thus I would have been unable to fit myself to my new life, had it not been for my friend the professor, who kindly took me in hand, educated me, and put me on my feet, as it were, so that now, as teacher of mediæval history, I am able to be a useful member of society.

On the morning of June 3, 2199, I was awakened by the playing of a phonograph, and on opening my eyes, found myself in a large and beautifully appointed chamber. As you may imagine, my astonishment was great, for as I recalled my thoughts I remembered distinctly going to sleep in a small, dark room very different from this, and I remembered the pain I had suffered the day before. Yes, I was sick, very sick. I remembered the doctor, the nurse, the anxious faces of my parents. But now all was different. What was the meaning of this change? Where was I?

Had I been carried to some other house, to some hospital? Was I still sick? I did not suffer; on the contrary I felt in the best of health; and then, as the dismal thoughts of the weeks of suffering I had undergone came back to me, I concluded I must be dreaming. Well, thought I, if by dreaming I can still the pain which tortured me, let me but dream forever!

I lay quietly on my back, and began to look around the room. At my left was a large window looking out upon a park filled with beautiful large maples, their branches moving softly with the gentle breeze; across the room a large fireplace met my gaze, with a mantel surmounting, on which there was a clock and some vases, and I distinctly heard the clock ticking. A most marvellous dream, thought I. As my eyes wandered about, now stopping to admire some pictures, now examining curiously some article of furniture wholly new to me, a little door above the dial of the clock opened, a miniature head was pushed out, and a soft, delightful voice said pleasantly, "It is now ten o'clock."

"Merciful heavens!" thought I, "what is the matter with me? Am I crazy?" And I jumped up in bed, and began to pinch myself,

but all to no purpose. The little clock kept on ticking, the pictures never stirred, and the fireplace was still at the foot of the bed, while outside the trees were waving their branches to and fro. I was bewildered, and while gazing out of the window, trying to collect my thoughts, a man in some sort of a machine flew by through the air.

That was enough. With one jump I was at the window, and there what a sight met my eyes! Before me was a beautiful park filled with trees and lovely flower beds, to the left stretched a boulevard lined on either side with large, handsome residences, its centre marked with broad, smooth walks edged with flowers, and on this boulevard many carriages were passing, but there were no horses; and above, in the air, men and women could be seen riding on odd, kite-like machines. My astonishment was complete. I left the window, and for several minutes I paced up and down wholly absorbed in the question which now completely occupied my mind. What had happened, and where was I?

How long a time I passed in this condition I do not know, but as I reached one end of the room, my attention was called to a calendar which was on a desk. I took it up and

examined it. I read, "June 3, 215 New Era, A.D. 2199" What could it mean — 215 New Era, A.D. 2199? Had I died and been born again? Was it really the year 2199? I had not much time to soliloquize, for the door opened suddenly, and two gentlemen entered. These gentlemen were Professor Harding and Dr. Coburn.

They greeted me pleasantly, asking after my health, and sat down to converse. Not knowing at that time the true state of affairs, their conversation was puzzling to me, and I will not now repeat it as it probably would be uninteresting to you, and also as a full statement of my case is given in the *Howard Medical Journal*, vol. XXVIII, p. 173; but it will suffice to say that the experiment of Dr. Coburn on my body previous to my reincarnation was very successful. All those who are acquainted with the case will remember that the body which I at present occupy formerly belonged to a certain Richard Pangloss, who went insane. The operation which was performed on his brain was the means of the transmigration of his soul and the reincarnation of my own. The operating surgeon, Dr. Coburn, did not at the time realize what had happened, thinking simply that Pangloss

had become sane again; and indeed, I have had great difficulty in convincing people of the truth. It is a most astonishing thing, I will admit, yet my knowledge of the nineteenth century is so full and complete that this is in itself proof of my statement, and it is the only proof I can give.

For some days after my first meeting with the doctor I was kept in the chamber in which I had been awakened, and served by the doctor and the professor; and during this time explanations were made by both sides, until my friends were prone to believe my statement, that is, that I was born in 1874 and died in 1901. It was, however, deemed advisable that this fact should not be generally known, and the professor, who lived alone, undertook to care for me until such time as I could obtain some self-supporting work. It was given out that Pangloss had survived the operation, but that his mind was a total blank, and that Professor Harding had undertaken to educate him; and it was in this manner that I became known to the public.

My first few weeks at the professor's home in Boston were mainly spent indoors, while he enlightened me as to the present condition of affairs, present manners and customs; he

also instructed me in the modern English language, which I found differed greatly from the old English I spoke, being simplified and changed in many of its idioms and conjugations; and I learned from him of the growth of the movement towards a universal language, which I believe is used wholly now, and which growth was started by a body of Americans in my own time. Being an American, I was proud of this fact.

The professor's house was not large, but was very well built and handsomely furnished. It did not differ greatly from many of the houses of the well-to-do people of my time, the only difference noticeable being the very extensive use of electricity. The house was lighted from top to bottom by large globes set in the wall and ceiling and handsomely decorated, and, upon turning a button, these globes gave off a brilliant and steady white light. Another feature not in existence in my time was the telephone system between the rooms, which astonished me; for in the nineteenth century one had to hold the receiver to the ear and talk close to the transmitter, while with the present system the conversation is so loud and distinct that neither receiver nor transmitter is required, the sound being audible in

any part of the room. This surely is a great advance. The use of electricity in the kitchen also surprised me. Cooking, washing, drying, and ironing were all accomplished by this agent, and the saving in time and temper, the lack of dust and noise, were very evident.

The library, in which the professor and I had most of our discussions — and we had many long and warm debates, which was to be expected between two men, one of the nineteenth and the other of the twenty-second century — was a roomy and well-lighted apartment. This room particularly pleased me. There was on one side a fireplace of grand proportions, with a beautiful mantel above, on which were some exquisite pieces done in marble. The walls were a dark red, and the woodwork was finished in white. Bookshelves occupied the sides of the room, and here the professor had a part of his library. There were here about nine thousand volumes. In the centre stood a table with an electric reading lamp on it — a lamp which gave almost no heat, and threw all its light downwards, away from the reader's eyes ; while below, on a shelf, stood a neat little ash-tray, cigar and pipe holder, with all the other paraphernalia which delight and comfort the smoker.

The dining room, which opened from the library, was also large and airy, and the walls of this room were covered with embossed leather to within three feet of the floor, the rest of the space being filled with fine oak paneling; the ceiling was crossed by heavy oak beams beautifully carved, which cut it into square spaces, in each of which there was a glass tube molded in the shape of a rosette, through which a current of electricity played, turning night into day. The sideboard was massive, with but little embellishment, and in this it matched the general tone of the room, which reminded me rather of ancient than modern architecture; and behind the glass doors there rested many a piece of delicate, dainty china. The professor, I saw at once, was a man of taste.

Now it is at the professor's solicitation that I undertake to tell my experiences with him. He wishes his fellow-citizens of the twenty-second century to know how their system of government appears to one fresh from the nineteenth century. It is for you, therefore, that I write these words. My trip through your country, the many interesting sights I saw, the pleasurable experiences I had, and the new sensations I received upon travelling

through the air — a thing I had long dreamed of doing — may be interesting to you as being written by one to whom they are extremely novel; and at the risk of writing much which I know will appear to my readers as a matter of course, I have deemed it best (and Professor Harding supports me in this decision) to tell everything just as it happened in its regular order.

One thing only I beg of you, gentle reader, and that is, that you will remember that this little book is written in the hope that from it we may be able to learn something, even if it is but little, which will help increase our scanty stock of knowledge. It may be that the people of the twenty-second century have nothing to learn from such an uncivilized fellow as I am, yet I cannot but think that the contrast between the nineteenth and the twenty-second century methods of thought is instructive to all, and this is my excuse for writing; therefore, on with my story — the story of the twenty-second century.

CHAPTER II.

WHEREIN I LEARN OF THE BIRTH OF THE MONEY REPUBLIC.

Seated one evening in the library after dinner, I broached the subject of change of opinion regarding economical questions, in order to draw out the professor and gain for myself a more thorough knowledge of present views.

"Your system seems so well to have solved the problem which confronted humanity," I said, "that I cannot understand it. Now, in my time we considered the social system so complex that we generally laughed at the man who said he could remedy it by changing one factor. I had often heard it stated that although many men had thought deeply on the subject of economics, they could not come to any conclusion which fitted and explained all the facts."

"Yes?" said the professor. "Well, you know that all students of economics in your

time were not deep thinkers. In my library I have the economic books of your century, and they lead me to believe that the depth to which your professors went in this subject was dependent on the politics of the capital which furnished their salaries."

"Well, well, professor," said I, laughing, "I do not know but you are right."

"Towards the last of the nineteenth century the changes in the coinage of the various nations of the world caused a great deal of attention to be devoted to this subject, and it was this fact which led to a radical change in society. You remember probably that the question was between bimetallism and monometallism. There were in the United States some men who, in studying up this question, were convinced that society existed upon an unjust basis, and they believed that that unjust basis was the current theory of finance. You will, of course, remember that your circulating medium consisted primarily of gold and a certain amount of credit money based on this gold and redeemed with this gold. Now it is evident, said these thinkers, that this is entirely wrong and unjust; for no matter how well a certain amount of circulating medium may handle trade at one time,

if trade increases, the amount of medium must increase, or else it cannot handle the increased trade."

"Hold on, do not go so fast. These things are so new to me that it takes time for me to fully comprehend them."

"Well," said the professor, "what shall I explain? You surely understand that money is simply a medium of exchange."

"Why, no; it has a double function. It is also a measure of values."

"There you are in error," said the professor. "No commodity or substance can justly be a measure or standard of values."

"Why, I do not understand," said I. "How can you measure values except by comparing the purchasing power of one substance with that of another which is accepted as a true and never changing standard? And when we read in the market reports of a fall in price in any substance, how do we know what it means unless we accept some standard commodity like gold?"

"Let me illustrate the foolishness of your last statement by a simple example. Suppose there is in a room a thermometer, and that you, a slave, are required to keep the temperature up to 100°, we will say, by working at a

furnace. Every now and then you run to the thermometer to watch the temperature, which keeps mysteriously falling. You cannot understand it. You work harder and harder, but the temperature keeps going down, and you are at a loss to comprehend it, until it dawns upon you that your master, by his manipulations outside of the room, is raising the scale by which the temperature is measured, for the satisfaction of making you work. This is especially applicable to your times, if we remember that the man who manipulates the scale is the capitalist, that is, the man who deals in money. His object in manipulating the scale is this: in general he is a creditor, and it is important to him that the debtor be kept in debt as long as possible, for the longer the debt lasts, the more interest the creditor gets. So he will raise the scale gradually, and when the temperature climbs up to it, up goes the scale again; so that the poor debtor, although he has paid the debt three and four times over actually, yet, measured by the scale, the debt is never paid. So you can see that, unless the creditor is willing, the debtor can never pay the debt. If the latter should suggest that perhaps the creditor has raised the scale, there would be

an awful cry. Repudiation it would be called. This was the condition of affairs in your time. The moneyed power was on the throne. Yet there were some men who saw the fallacy of this thing."

"Why, professor, you throw a new light on the subject. It never struck me before that gold, a standard, might appreciate, and yet it evidently can, for value being a ratio which one can express by a fraction, it may be changed by changing either the numerator or the denominator. Well, in the future I shall be more careful in thinking of these things, but as you express it, it seems perfectly simple and easy to understand by any man who uses his brains."

"It is," said the professor, "but in politics a voter of your century never used his own brains. He always borrowed those of the editor of his pet newspaper. Now you see that the fallacy of this scheme of finance lies in limiting the issue of redemption money to the amount of one commodity. Of course it is immaterial which commodity is used, as the fallacy is in using only one."

"But," said I, "how else can you do it? You cannot call a bushel of wheat a dollar, or a dozen eggs fifty cents; a man cannot carry these things in his pocket."

"No," said the professor, "nor does the man carry the gold in his pocket. In your century and in ours he carries paper in his pocket; only, in your times the amount that could be issued was dependent upon the amount of gold in existence, while in our times it is dependent on the amount of *wealth* in existence. In one case the supply is limited, therefore its value as a commodity is constantly appreciating, as is shown by a constant fall in prices; while in the other case the supply is unlimited, as it depends upon the amount of wealth, and therefore it has no value as a commodity, so that it makes the best possible medium of exchange."

"But, professor, in speaking of falling prices, you must admit that it shows progress — shows that we can now make useful commodities much cheaper than we could one hundred years before."

"Right here, in order not to get confused, we must go slowly," said the professor. "If you only mean that we can make useful things with less expenditure of labor, your statement is true; but if you mean that because of this fact their worth has decreased, then you are wrong. The worth of a hat is the same, whether it costs $10 or $2. You

confound the worth of a thing, which depends on its inherent characteristics, with the market value, which depends on the effective demand and supply. As the effective demand is wholly dependent on the amount of money in circulation, it is evident that the capitalists in your day controlled market values. Now some of your greatest statesmen declared over and over again that your hard times were entirely due to overproduction, which was an absurdity, taking into consideration that at the same time people were starving. It is only explained when you understand that it was the effective demand that was stopped by the capitalists for their own benefit. The amazing thing to me in all this is that the majority believed the way the capitalists did and actually voted for the so-called honest or hard money, which meant appreciated money; and as we look back at the century we are also amazed to see that people thought it a sign of progress to see prices fall; and we find but few men going deeply into the subject, or else they would have seen what one man saw very clearly, and that is, that with progress comes poverty. This is such an evident fact in all growth of the past that it is astonishing that most men could overlook it. But to return.

"There were, I say, a few men who understood the true conditions and resolved to change them. They gathered a large number around their standard and met in Chicago in June of the year 1904. There were present about five hundred men of all classes, and they undertook to discuss the various methods of testing their own theories. The meeting lasted for three weeks, and nothing was settled. The various platforms had not met with enough approval to warrant deciding upon any one, and until the last week no understanding had been reached. During the last of the meetings some one suggested that they start a government of their own, which plan was discussed by those present; and although it did not receive a unanimous vote, still there were a great number who were in favor of it. At the end of the conference, while most of the members went home feeling that the time had not come when concerted action could produce good results, there was a little band of two hundred or more resolved on emigrating to some foreign land and starting a government on their own plans. During the following year their plans matured, their number increased to six or seven hundred, and they departed from America for Africa on May 7,

1905, and arrived in sixteen days at their destination, which was a strip of land on the western coast. The main points of their constitution, aside from their theory of finance, were that they had only two branches of government, executive and legislative. These men claimed that a judiciary was not needed where scientific and just laws existed, holding that disputes never could be hot enough not to be settled out of court, as it were, unless it were a matter of life or death, starvation or plenty; and as they considered that these conditions could only exist where there was a poor scheme of finance, they judged, and rightly, there was no need of this department.

"It was written in their laws that all disputes should be considered settled when judged by three men, one to be chosen by each of the contestants, these two to choose a third. Their legislative branch was much like your house of representatives and they had no senate. They had a very strong power of taxation, which they enforced; and yet no tax, in the sense you would understand it, was collected. You must remember that the flying machine, large enough to carry five or six hundred pounds, was in existence at

this time, and that its use was very general. These machines were cheap, being made of wood, steel tubing, and cloth, and were run by small gas motors. In our museum I will show you a picture of what we consider the primitive machine. It consisted of superposed aeroplanes driven forward by propellers, or in some cases by small flapping wings. These machines, being in existence at the time of the founding of the colony, were a strong factor in its growth. Many times they were used for the defence of the nation.

"Now we see that the radical difference between this and other nations was in its financial system. As nations grew older, poverty which had not existed before, showed its head, and many wondered if it would be the same with this nation."

Our conversation at this point was interrupted by a call from Dr. Coburn, and it so happened that it was some days before the professor found time to take up the story again. Meanwhile I busied myself sightseeing on my bicycle, and the district, with its fine residences and boulevards, pleased me greatly.

CHAPTER III.

MY FRIEND ENTERTAINS ME WITH A NOVEL FINANCIAL SYSTEM, AND CONTRASTS IT WITH THE BARBAROUS ONE IN FORCE IN MY TIME.

"Well, my friend, have you been enjoying yourself since I saw you last?" the professor asked me one day after luncheon, as we again adjourned to the library for a quiet chat.

"You may be sure of it," said I, "your district here is so well planned, your streets are so beautiful; but do you know, I miss the horse."

"Yes, that is to be expected. Of course in your day he was a necessary animal, and contributed not a little to your comfort and convenience; but at the same time he also did his share towards the progress of disease. He is practically extinct now, only a few being found in the zoological gardens, for of course there was no use for him when we had invented our little compact engines and mo-

tors, so there were none bred, and the race died out very quickly."

"I must say, I did not enjoy the production last night at the Esplanade Theatre. You know, professor, I am slightly old-fashioned, belonging to the last generation but twelve, and I could not understand the sentiment."

"It is not to be expected. In your day there must always be a villain in the play, lovers who are parted, some heroine who is despoiled of her wealth. Now, you know, in our day those people don't exist, simply because the system which bred them does not exist. Why, it is some ten or fifteen years now since I have seen any revival of such plays. As you cannot understand our drama, so we cannot understand yours. You know that the ancient Greek drama was rarely played to your audiences, for in your time it was action that was wanted; the Greek plays are more displays of oratory, as ours are now."

"It was, however, admirably well staged and ably managed. But let us return to our interesting conversation of last week. Do you remember where we were? You were telling me of the rise of the new republic."

"Oh, yes," said the professor; "I never forget that history. The growth of that re-

public did more for humanity than any other movement has done since the change from Pagan to Christian religion. That is a period in the history of the world that our children have to understand before all others.

"Let me see, I believe our little band of colonists had just got to Africa — was not that where we were? Yes, I thought so. Their first thought was to provide food and shelter, and as they were all enthusiasts there were no shirks. They worked and exchanged by barter for the first year or two until they had accumulated some wealth, and then they had a meeting to start their scheme of finance. The basis of their scheme lay in the fact that the total amount of money must increase as the wealth does, and not be limited to the increase of any one commodity, so that the amount of money issued at first was of little importance so long as the future issue was regulated by the increase of wealth. Their first issue was therefore made $100 per capita. We now come to an important step. The question which they next settled was to whom and in what proportion it should be issued.

"This was a difficult point and caused much discussion, for the question whether or no ten hours labor in one trade deserved more than

the same time spent in another, arose immediately. They argued it for some time in their little town meetings, but finally decided to divide equally all money issued by the government, and passed a law to that effect. The principal arguments in favor were: first, since they had left America to escape that state of affairs which fostered the growth of privileges based upon the private ownership of land and capital, to divide unequally would tend immediately to produce those differences of opportunity from which they had just escaped; and second, that as the distribution of existing wealth was the main factor which determined the future production of wealth, and as the future production of wealth would never be so great as under absolutely equal division of existing wealth, to divide unequally would tend to prevent the production of wealth. This last argument is an economic law not known in your time, some of your statesmen even going so far as to say that distribution had nothing to do with production. Now, of course it is practically impossible to divide wealth equally, so they did the next best thing — divided money equally.

"They had now taken their first step to test the system. Their pieces of paper money

had written on their face the words, 'The Government of the Money Republic (that was its name) guarantees this bill to be exchange able for any or all commodities to the amount of one dollar,' and on the back, 'This bill is legal tender for all debts public or private of whatever nature.' The first issue was all in ones; but as wealth increased, there were twos, fives, tens, twenties, and so on, issued, besides smaller subsidiary issues. Upon the day of their first issue the time of the second issue was discussed, and it was voted to make it a year later. The meeting then broke up, each man holding his pieces of paper which, while of no value in themselves, were the capitalization of his labor. He knew that the government was strong enough to enforce its stamp, or, in other words, that a majority of the people believed in the system; and he knew that the currency was on a firm basis since, being issued on all forms of wealth, it was not dependent upon the quantity of any one form. Since all forms of labor could be capitalized, he knew that the way to get rich — that is, to get some of the medium of exchange — was to produce wealth.

"In your day the way to get rich was not to produce wealth, but to take what there was

in some one's else pocket and put it in your own. This idea was so prevalent that the number of actual producers compared to the whole number of consumers was very small, and therefore perforce those producers worked the hardest and the longest. In your time a banker would come into his office from the stock exchange and, rubbing his hands, would say, 'That was a fine stroke of work — $10,000 in fifteen minutes.' All this man had done was to transfer some wealth from a number of other people's pockets to his own pocket. This state of things bred a race of men who were cutthroats. I do not mean this literally, of course, but I mean that a vast number of your brainy men, young and old, were engaged in the pleasant occupation of forcing each other to the wall. While this was going on, the laborer, the real producer of all this wealth, for the control of which all your men of brains were striving, got only a bare living. His condition was almost as low as was possible for existence. He received no attention except such as he could force by trade unions. I will admit, however, that periodically at elections he was much petted — for his vote.

"This condition of affairs was so universal

throughout the world that, in speaking of it now, we call it the Age of Degeneration, because men had degenerated from producing to controlling wealth. This could not have happened if your nation had had a good financial system. Your circulating medium being one commodity, its quantity was easily controlled; and since it was that medium which purchased all commodities, the aim in your day was to control that medium. When we look back, we see that there was only one man who appreciated fully the fact that with progress came poverty. His medicine for the disease was a single tax on land values. He accepted concentration as a condition of progress, and saw clearly that, with that condition, private property in land wrought terrible havoc. Let us now go deeper than he did and examine the case.

"Is concentration a condition of progress? The answer is yes, in those countries which have a bad theory of finance; no, in countries having a scientific theory of finance — that is, a theory in which money is based upon all commodities and not on one. Under the gold standard system, the amount of money being limited, it became of the utmost importance to be where the gold was, in order that

you might be on hand to take advantage immediately of any slip of your adversary, so that you could transfer some of his wealth into your pocket. Nations became bodies of men absolutely intent on picking each others' pockets. The cry was, money, money, money! Those who were the smartest in picking pockets with neatness and dispatch were looked up to as models, and formed a moneyed aristocracy before which other poor foolish mortals humbly bowed. In your ancient city of London, the centre of trade and commerce of the world, the capital of a kingdom under the most perfect sway of the gold standard, people were huddled together like sheep in a fold. Wealth was constantly before them, from morning till night did they toil, and yet what was their reward? Nothing but a bare living. Do you wonder that bomb throwers, dynamiters, assassins, fanatics, existed? Do you wonder that men questioned the principles on which society was built? Pain in our bodies means disease. To an economist the existence of destructionists, nihilists, means disease. In a system founded on just laws, such things could not be. If we shun the warnings of pain, the existence of our body is threatened. So it is

with society. However, to return to concentration.

"It is evident that when the aim of men was to control wealth, they must be near each other. As their business was to transfer wealth from the other fellow's pocket to their own, it became necessary to get close to the other fellow's pocket; hence they would pay for the privilege, hence the value of land. Now when, under a scientific theory of finance, the easiest way of getting hold of the medium of exchange is by producing some commodity, it is evident that there will be no need of getting near the other fellow's pocket, since the amount of circulating medium he may have will amount to nothing in comparison with what you may procure for yourself by increasing the total wealth. So we find no such competition as existed in your day, under this system, and no concentration, there being no cities with their twenty-story buildings at all. Our population is spread out over the country now, and I believe there is no family without at least ten thousand or twenty thousand feet of ground for a home."

At this point the professor stopped, and suggested that we should take a bicycle ride,

that he might show me some of the residences and homes of which he had been speaking. "The day is too fine to stay indoors," he said.

"I heartily agree with you, and I am sure I should be delighted to take a spin."

CHAPTER IV.

WE ENJOY A BICYCLE RIDE.

We were soon on the road which led to the west for forty miles, and passed by some of the most beautiful homesteads I had ever seen. This boulevard, like all the other streets, was two hundred feet wide. In the centre there were walks, with flower beds and beautiful trees. It was an earthly paradise. One who rides a bicycle appreciates the smoothness of a hard road uncut by horses' feet or iron tires. Coaches passed us at high speed with no noise, and as I rode along I appreciated fully the fact that here at least was a rich, prosperous, and happy nation; no squalor, no ragged clothes, no careworn faces. As I thought this over I could see that I myself was entirely unsuited for such conditions, that my mind was sordid, my nature selfish; how else could it be, brought up as I was in the nineteenth century to look on money as the aim, the highest goal of existence, and having as a guide the common saying, "Get

money — get it honestly if you must, but get it"? And as to get it honestly simply limited the extremes to which one was allowed to go in picking another's pocket, we were all in the same business.

We spent the afternoon on our wheels, and I saw countless fine residences with large lawns and beautiful driveways. There was no monotony of architecture, and everything was to me new, fresh, and beautiful. In gliding through the streets the absence of surface cars astonished me, and I mentioned my astonishment to the professor.

"Why," he said, "our horseless carriages take their place. While you have horses, you must have pavements, and with pavements tracks are necessary, since a heavy car cannot be run on the uneven stones which are necessary for the horse; but with no horses pavements give way to asphalt, and then tracks are no longer needed, hence we have returned to the old method of transportation, the stagecoach. I imagine, however, our coaches are somewhat different from yours," added the professor, with a smile.

This brought to mind the Broadway stage line of New York, with its rumbling wagons always on the point of falling apart and its

skeletons for horses; and I was thinking of the many uncomfortable and noisy rides I had taken in these old coaches when a modern stage passed us. Large, well lighted, and running upon immense pneumatic tires, no noise was audible save the merry laughter and talk of the occupants. Driven by electricity from an efficient thermopile, it was controlled with the greatest ease and seemed to stand for the perfection of surface travel.

"What speed is allowed, professor?"

"Twelve miles an hour and sometimes fifteen. Our longer roads connecting districts use rails, since with the speed obtained — about eighty miles an hour — it would be impossible to steer and turn curves, for the wheels would not grip the road, but only slide; but in shorter distances, with speeds up to twenty miles an hour, rails are not used."

We did not in this ride come close to any flying machines, although there were plenty of them in the air, since they rarely landed on the ground, but on a high tower built especially for the purpose and called an air wharf. These buildings were the highest of any, being almost always over six stories. This did not seem high to me; but no other building that I remember seeing was over

three stories, so it was high by comparison. By the way, this fact in itself showed me that land values had fallen, for people spread over the earth instead of rising above it. To return; from the top of these buildings a large openwork tower of steel ran up for a hundred feet, and inside of this was an elevator; and it was from the top of this tower that all flying machines started. Our ride lasted for two hours, and we returned with fine appetites, ready to do justice to the dinner awaiting us.

After a refreshing bath, I joined the professor in a delicious cocktail before sitting down to table. He is an adept at the making of cocktails, and that one, I know, went to the right spot. When it came to the coffee, cigars, and cordials, I started the professor on the Money Republic again, for its history interested me.

"Well, professor, how is the Money Republic? It is very interesting to me now, as the republic must be getting into a place where it will need capital for growth. A country does all very well without it when young, but to grow it must have capital."

"Really," said the professor, "you do not understand the function held by capital in your day. Let us consider for a moment.

In your day capital was money, cold cash, gold, — that is, in young countries, of course; as nations grew older, capital was represented by buildings and other forms of wealth. Now, when a man came to an undeveloped country, with say $100,000 in gold, he was a capitalist, and was called an aid to the growth of the country. If, however, he should pile his gold in stacks, he might wait until doomsday and there never would be one cent's worth of wealth produced. The two essentials are land and labor. How, then, can a capitalist produce wealth? He cannot produce it; all he can do is to assure to the laborer a certain quantity of the circulating medium if he, the laborer, consents to produce it. From this you can see what a tremendous hold upon the course of industry have they who control the circulating medium. With us now the act of creating wealth assures to the laborer a certain quantity of money. As our issues each month are made on the actual increase of wealth in dollars, you can easily see that no matter where a man works in our realm, so long as he produces he receives money. This is why we have no cities. In your day it was not sufficient to create wealth; you had to undersell your neighbor and compete in in-

dustrial warfare for the chance of exchanging your wealth for as much of the circulating medium as you could possibly get. This necessitated concentration, for it was a fight at close quarters."

"But you say that these pieces of paper were legal tender for all debts, public or private. Now, in my time the majority of the people would have laughed at you had you said that such stuff was money. Why, one of our ablest statisticians was heard to say on the platform that only that was money which was worth as much without the government stamp as with it; and past history was quoted to show that from time immemorial gold had always had preference as money."

"Let us consider, then, the value of the government stamp. Suppose I owe you $100, and you refuse to take the piece of paper that I offer you. What can you do about it? And now we see the real reason why gold has had preference in the past. If the government is stronger than the creditor, then the creditor must accept the paper, as, if he makes a fuss, the government will have the power to arrest him and will use it, unless the creditor controls the government. This latter condition was, I am afraid, the one prev-

alent in your time. If, however, the creditor is stronger than the government, the debtor must pay in whatever commodity the creditor stipulates; otherwise his very life will be in danger, since the government is powerless to interfere. This was the condition before your day. In the past men have always been stronger than governments. It was always the oratory or personal magnetism of the individual which carried the day.

"It may be well to state here that by strong government I do not mean that government which has an armed force at its command, but that which has behind it a large working majority of voters who believe in the principles it tries to enforce. If ideas are changed and the majority dwindles to a minority, then the government is weak, regardless of its army and navy, and will fall and give way to the government representing the majority. We thus see that that country in which the government is most easily changed to suit the change in public opinion will exist longest as a unit, and will be disturbed by the fewest political uprisings by force; since, when an abuse becomes very great, its existence will be evident to the majority of voters, and the then existing govern-

ment will be overturned with no more excitement than a political campaign. Realizing this, we must see that, to change a policy, one must change opinions.

"To return. Since it was a great advantage to the creditor to make the debtor pay in a commodity of which the quantity in existence was small, and which by its properties lent itself to hoarding, he chose gold and silver; and when governments were formed and money issued, it was only gold and silver money, since that was the creditor's money and the creditor was a powerful man."

"But in our time, professor, men said that government could not by legislation create values; they claimed that government never, entered trade."

"They were wrong. Governments were the heaviest purchasers in any market. There was in the Germany of your time a millionaire named Krupp. This man's whole fortune depended on the fact that governments were buyers of iron and steel in the shape of war materials. There were numbers of other men who got a living trading with the government. Now, legislation can create market value. Given a rich government, and it can increase the market value of any commodity

whatever by entering the market as an unlimited buyer of that commodity. It was only when governments were poor and did not hold the taxing power that their legislation was of little value in trade.

"In our African republic it was only necessary for a man to suggest a way in which the total wealth of the community could be increased, and to convince others of this fact. There never was a lack of laborers, since any increase in wealth meant to them more money. So we see that because of this the growth of this republic was tremendous: it soon became quite a power, and its area was greatly increased. There were no cities, no misery, no squalor; everybody produced, as otherwise he got no money — this being quite the opposite of the conditions in your times, when the manipulator got all the money and the producer none. Of course the increase of wealth was enormous, and as it was equally divided all had plenty, so that soon the hours constituting a day's work were decreased, until now we work only four hours a day. In your time some did not work at all, others worked seventeen hours a day; with us all work four hours a day.

"Our morals are far ahead of yours. Con-

centration could not but breed immoral characters. The social evil is extinct now. To have intercourse with the opposite sex is the natural appetite of humanity. To do it morally is by marriage. But in your time it was hard enough to support oneself without feeding a wife and children, so we see that as the nation gets older men marry later, or marry not at all. The bachelor of your time, with his morals and his mode of life, the prostitutes, the thieves, murderers, maniacs — all were the offspring of that barbarous financial scheme which had been handed down to you from the Middle Ages. The philosopher must take this calmly and lay it to the ignorance of the masses.

"If in your time you had told an average man that one commodity could not possibly be a just standard for the measurement of the values of all commodities, he would have looked at you blankly and told you you were a fool. Years before your day this same fight was made over the divine right of kings. Progress is slow. But to return to our republic! Its growth was so rapid that very soon all eyes were centred on it. The discontent in other nations grew stronger and stronger, until finally the smouldering fires

burst out, and then the havoc and ruin wrought were frightful. The lives lost numbered hundreds of thousands; property on all sides was destroyed, chaos reigned supreme, and during these months the most tremendous anxiety was felt as to what would be the result. Now it is of course a matter of history. Out of the flames the phœnix rose. Never more could the few prey upon the many. All governments were on the new foundation, and peace and prosperity again settled over the earth. This regeneration of society has been considered of such importance that our new era begins with it. It is the year 215 now with us, but measuring from the birth of Christ, it would be 2199. The exact date of the beginning is June 10, 1984, A.D., this being the date of the birth of Thomas H. Blackburn, who was the leader of the regeneration and the direct cause of the chaotic era from which came such great results. He was struck down by the hand of the assassin. The day of his birth is now an international holiday with us."

"I assure you, professor," I said, as he paused in his history, "never has anything interested me so much. The period of regeneration must be even more interesting than what you have told me."

"It is; and I want you to come with me to-morrow night and hear Professor Waters speak on it. You will enjoy it, I am sure."

"It will be a great pleasure, and I shall be very glad of the opportunity."

Thus ended our conversation upon the Money Republic, and we adjourned to the library, where I spent the evening in reading the latest volume of Professor Hazelit upon "Mental Telegraphy: Its Effect upon the Brain Cells and the Means of Acquiring Efficiency in the Art." A truly wonderful book this, and its explanation of that phenomenon by natural laws is extremely lucid. I became absorbed in it.

CHAPTER V.

WHICH TREATS OF THE OFT-PREDICTED REVOLUTION WHICH FINALLY OCCURRED IN THE YEAR 2021.

On the night of the lecture the professor and I started together for the hall. It was a lovely moonlight night, and the walk down the boulevard was delightful.

"Nature is the same as it was two hundred years ago, professor, and how lovely it is!"

"Yes," he answered, "but do you know that our condition in life affects our appreciation of nature? In your time how could the masses, who had to toil from morning to night in dark rooms, know anything of nature, its beauties and its charms? When one has worked hard for ten hours in a day, one is in no condition to think of anything but the pleasure of the moment, and when crowded together in small areas this invariably led to low morals and filth. You were

saying that nature had not changed; that is true, but I think that soon man will change it. There is an invention, I understand, that is about to be announced which will add to the length of the year. Our earth is rushing through the ether at the rate of a thousand miles a minute; and this invention will put a brake on it, so to speak, with a view to converting the kinetic energy of the earth into electrical energy. The use of this machine will be limited at first, in order to ascertain just what happens to the earth's motion; but, of course, if it can be used safely it will be a great saving, as our supply of electricity will be unlimited, at least for millions of years."

When we got to the hall we found it crowded, and had considerable difficulty in getting to our seats. At eight o'clock Professor Waters appeared, amidst great applause. He was a tall man, well proportioned, with a smooth face, high forehead, and dark, piercing eyes. His hair was black and very thick. He had an easy but commanding presence. The following was the lecture as I remember it:—

"*Ladies and Gentlemen:* The subject which I am to treat to-night is the Era of Regeneration. Although this era covers a

number of years, properly speaking, I wish to talk to you only of the few years previous to and following the so-called Chaotic Era. We are, I think, familiar with the formation and rise of the Money Republic. That was the subject which I tried to treat very fully in my last two lectures. This evening, then, we are mainly concerned with the acts which led up to the tremendous revolution of 2021.

"There had been in the United States, during the period following the formation of the Money Republic, a number of men who had watched its enormous progress very carefully. Many of these men had journeyed to the Republic to learn its methods, a great number had gone to become citizens, but many had remained at home and devoted their energies to sowing the seed of revolutionary feelings. At the dawn of the twenty-first century the gold standard theory of finance was so strong that, in spite of the example of the republic across the water, that theory still flourished. The governments holding it were under the absolute control of the few who manipulated the currency. Of course it goes without saying that these men were creditors, since otherwise they would not have been anxious to decrease the volume of money. As this state

of affairs is so strange to us, let me give you an illustration of it. There were in circulation in our country, during the ancient Civil War in 1862, a lot of notes called legal tenders, and these notes were redeemable in coin, that is, either gold or silver, but in nothing else. Now, by an act of legislation those notes were made redeemable in gold. It is evident that this act had for its end the draining of the treasury's gold, — and why? My friends, for a very simple reason. It was necessary that a certain amount of gold should be kept as a reserve. Now, if the government had kept the right of paying these greenbacks in gold or silver, upon their coming in in large quantities they might have been redeemed in silver, thus keeping the gold reserve intact; and this fact of redeeming in silver would have tended to prevent redemption, since, silver being bulky, men would have preferred the paper, and it would have been kept in circulation where it belonged. But the few men behind the legislation did not want the gold reserve kept intact; it was not for their selfish interests that the government should have gold, since, if the reserve dropped, gold would have to be borrowed on bonds; and thus the action of redeeming the greenbacks forced a bond

issue. Of course this issue did not come immediately after the legislation, but the gold men did not care for that, — they knew it was only a question of a short time. They were willing to wait because they would be sure to keep the government in debt.

"In this way we see that, by concerted action on the part of bankers and capitalists, a bond issue could at any time be forced, for, having control of the currency, they could easily drain the treasury of gold. Knowing this, we can understand, somewhat, the influence gold had in legislation. The financial system had such a hold on the people it hurt that it seemed a hopeless task to teach its errors to the lower classes. There were, however, a number of men who worked faithfully and without reward for the interests of humanity. These men worked on their own lines and did not join with any of the other sets of workers. They realized it was a question of education, and were willing to educate slowly.

"It was not until the last of the twentieth century that activity was shown. You, of course, know to whom I am going to refer now. Is it necessary for any one in this vast audience to be told who it was that carried the era of regeneration to a successful termi-

nation; who it was that in the midst of scorn and enmity completed the great work of reformation; who it was that in the United States Senate, May 4, 2021, defied the power of the capitalist, and in his speech, which I shall read to you to-night, warned his fellow senators — yes, warned the world, of what was to come? If, I say, there is one so ignorant that he does not know this man, let him look while I show him the statue, let him listen while I pronounce the name of Thomas H. Blackburn."

As Professor Waters uncovered the statue which stood on a pedestal on the platform, the audience arose as one man, to a cheer such as never was heard before. Such enthusiasm and applause showed me the feeling the people had towards this man, and I thought to myself, "This is their George Washington." When quiet had been restored, Professor Waters continued with the lecture.

"Thomas H. Blackburn was born in Illinois, in a city called Springfield, on June 10, 1984. His father was in the dry goods business and was a prosperous merchant, except that he, like the others, suffered from periodic panics. The son had a good education, high school and college, I believe, and then

entered his father's business as a small partner. In his college days he had read much of the money-reform literature which was being circulated very freely just at that time by our friends, who had a number of prominent citizens of the Money Republic behind them. This literature had left a deep impression on him, and being of an investigating nature, he had not been content to follow the party leaders, but had done some thinking on his own account — a thing very uncommon in those days. He never told his father of his theories, since Blackburn senior was a man who, if you asked him why he always voted the same ticket, said indignantly, 'Why do I vote for the Republican party, sir? Why, sir, that party was good enough for my father, sir; it is my party, sir; it is good enough for my son, sir,' and he considered the question settled. For myself, I fail to see the force of this argument.

"In his work at the office, Blackburn junior, after he had acquired the necessary knowledge of the details, found that he could draw his share of the profits, which amounted to about $2,500, without doing anything but staying in the office and seeing that everything was right. This was a very easy task,

and he wondered why it was necessary to have to look out for these things. He soon saw to the bottom of the barbarous system. He saw that, with a limited quantity of money, it was a fight to the death to get what there was ; and he saw that if he did not stay in the office, some concern, also in the fight, would cut his throat while he was not looking. I am inclined to think that Blackburn did not like this state of affairs. He shows this in his early writings and his later speeches. His first writings were published by the little band of money reformers, and were essays on business in general, in which he set forth with great clearness the functions of the various men in different departments. In a pamphlet on economics he showed very ably that to exchange goods for money was only half a transaction, the other half being the exchange of the money for goods, and therefore, he reasoned, it must be the money which fits itself to trade, and not trade which fits itself to money.

"These writings were all under an assumed name, and he was only twenty-three at the time of publication. His father had known nothing of this work, but had fumed a great deal over some articles he had read

in the daily papers, little knowing they were written by his son. Of course the break had to come sooner or later, and when it came the son was too firm in his convictions to try to patch up the matter. He quietly withdrew what little wealth he was entitled to from the business, and went to the city called Chicago — which at that time was in the same state as Springfield — on the border of Lake Michigan. This city held over three million people, and in some parts of it the condition of these people was one of such filth and degradation that I think I may fairly say it is beyond our comprehension. Here he drifted into politics, and we lose sight of him until he appears in the city government.

"I think there is nothing in this part of his career of which I wish to talk to-night. He went from city to state, from state to national politics, and at the age of thirty we find him on the floor of the Senate. This, you know, was the Upper House, which did not become extinct until after the reformation. Here he did good work on committees, showed much ability in speaking of foreign affairs, and was continually elected from his state until his untimely death. It was during the last seven years of his life that he formed a

secret political machine; for he recognized that the time was approaching when the blow should be struck, and he prepared himself for it. He had been receiving news from all over the civilized world that the example, the progress of the Money Republic, and the teaching of the believers in that theory of finance had at last had an effect, and that at last the people understood what had been going on and were determined to stand it no longer; so that he thought the realization of this fact would influence senators more than gold possibly could. He was not afraid of the Lower House. Consequently, in April, 2021, the last effort to attain the end peaceably was begun. It was generally understood by the labor leaders that, if Blackburn was not successful in the passage of the finance bill through the Senate, the end of his speech was to be the cue for a tremendous revolution throughout the world. The foreign workers were content to await the result of Blackburn's efforts, since, if the United States changed its system peaceably, foreign governments would fall in line. So the reformers said they would wait for this, but if the senator was unsuccessful, then an international uprising must immediately follow. That Sen-

ator Blackburn knew his efforts would be watched with great interest is true, but that he ever suspected his speech would precipitate what it did is not true. We have abundance of proof in his letters and papers of what he had intended to do if unsuccessful, and nowhere do we find that he had even a suspicion of what was to follow his exit from the Senate chamber. Even the letters to him from the labor agitators conveyed no information concerning the plans they must have known. It is probable they did not dare tell him from fear of his breaking down under the tremendous strain, and it is also probable that the size of the revolution was greatly increased when the news of his death at the hands of another senator was telegraphed over the world. At any rate, he came into the Senate chamber on the eve of May 4, looking calm but determined.

"After much fighting the bill had been pushed through the House; it had come to the Senate, but had met with obstruction and had not been passed. Just before he rose to speak, Blackburn told his friend, Senator Chase, that he intended to take a trip abroad to improve his health, get rest, and confer with labor leaders there. This is also another

proof that our senator had no knowledge of what was to come, in spite of the fact that part of his speech was prophetic. It was half past ten when Blackburn arose. He spoke for ten minutes only, but his speech was the tinder that fired the reformation of 2021. It was as follows, and history says it was delivered by Blackburn in his best possible voice and manner: —

BLACKBURN'S SPEECH.

"'*Mr. President:* I wish to say a few words upon the action of the Senate in refusing this finance bill. For a short time, only a short time, I wish to talk to you, not as politicians, but as men.

"'Many years ago, when our forefathers settled in this beautiful country, a common danger from tyranny caused the formation of a compact government, with rights vested in our Constitution. In that Constitution it was declared "all men are born free and equal," and history tells us that the men who framed this document were honorable men — men who had the freedom and liberty of the masses at heart, men who gave up in many instances chances of personal advancement for the sake of benefiting others.

"'For two centuries and a half descendants of these men have occupied this continent; for two hundred and forty-five years have the rising generations been taught to respect and value the Constitution — yet what do we find to-day? How have the legislators understood that document which in their childhood they were taught to respect? Have they endeavored to give all men equal opportunities, to crush at all hazards powerful monopolies? Have they acted toward the people they represent as Washington and the statesmen of his time did? Alas! any schoolboy will tell you that a man goes into politics nowadays not to represent his district, but to enrich himself; any schoolboy will tell you that our politics are controlled by the lowest and meanest of our citizens, and that the only man represented is the one capable of buying a representative. This is but too true. The history of this country is the history of the rise of the money power; and within the last century we have had, as every one knows, nineteen Presidents whose elections have been bought by capitalists supporting the gold standard, and our policy has been shaped by these same capitalists, until now things have reached such a stage that it is time to call a halt.

"'Our whole political system is honeycombed with corruption, and the man who has the largest purse, who is the most unscrupulous, or who controls the most perfect political machine, shapes the policy which governs the welfare of 200,000,000 of souls. You all know well enough what I mean; and also it is not necessary for me to tell you who is the head of the syndicate which furnishes the money behind the obstruction to this finance bill. This same thing has been done before; and this same syndicate has feathered its nests several times on bond issues into which it has forced the government, which never could have occurred except under this unjust system of finance. If we look around us to-day, what do we see as the result of this monstrous system? We see gigantic trusts, tremendous monopolies, which wield their power only for the benefit of the few who own them, which control industry and direct it only into those channels which cater to the few, which corrupt legislators with their wealth, and cause the degeneration, yes, the decay of the body politic, which utterly ignore those who labor, those who produce all the wealth from which these same monopolies gain their sustenance; and when discontent shows its head and the

toilers murmur, what is done? A little charity perhaps is given, but no justice. Weak, incapable men, the tools of capitalists, are sent out, and the poor, ignorant people listen to honeyed words about the rights of labor. They are told that civilization must see to it that labor is better rewarded; they are rocked to sleep with fulsome promises of immediate financial legislation in their interest; they are told that the administration is toiling night and day in order that a better system may be inaugurated. This is what they are promised, this is what they are told; and in their ignorance, and with almost superhuman patience, they believe and are content to wait. By heaven, how long will this patience last?

"'But what is done? I ask you, gentlemen, what is done? Nothing! At the last election more than $20,000,000 was spent to bring the present administration into power; to bring into power that party which three years ago promised on the stump such wide-reaching and beneficial reforms; and in these three years what has been done? Nothing! How long is this to last? How long is this to last? How long will this administration seek to divert to foreign questions the minds of our people, in order that they may be less occu-

pied with this vital problem which is knocking at our doors for admittance, and which, if entrance is refused, will by the very force of its momentum overthrow the reigning powers and precipitate us all into a sea of chaos, the like of which the world has never seen?

"'Can this continue forever? Will the people always be patient? How long have we got to stand this tyranny? Fellow senators, I pray you to remember we are all human beings, that the lowest and poorest of us, whom I represent to you to-night, are flesh and blood. Hath not a poor man eyes? Hath not a poor man hands, organs, dimensions, senses, affections, passions? Fed with the same food, hurt with the same weapons, subject to the same diseases, healed by the same means, warmed and cooled by the same winter and summer as a rich man is? If you prick us, do we not bleed? If you tickle us, do we not laugh? If you poison us, do we not die? And if you wrong us, shall we not revenge? If we are like you in the rest, we will resemble you in that. The villainies you teach us we will execute; and it will go hard, but we will better the instruction.'

"And here history says that Blackburn paused and stood with folded arms, gazing

from face to face, his manner, more than his words, holding the attention of every one.

"'I stand to-night to represent suffering humanity to you; I warn you that your love of gold will be your ruin; that the system of government which you represent is tottering, and like Romé of old, the hordes of barbarians are waiting, only waiting for the moment of invasion. Are they on our borders? No, they are already among us, in our cities; they are the toilers, the workers, the producers of all that wealth which, by God, you — you, I say — you who are supposed to represent them, steal from them. Are you so blind that you do not see this? Are you so vile that you will not see it? Must it be written on the walls of this Senate as it was in Babylon, "Weighed in the balance and found wanting"?'

"At this there was an angry murmur, and Blackburn raised his hand. 'One moment more. I leave this Senate to-night a sorrowful man. Could my death bring relief to suffering thousands I would not hesitate. I have given you warning, now you must take the consequences, and God will decide the issue. Mr. President and fellow senators, I have done.'

"Blackburn then calmly left the Senate and was immediately driven to his apartments. Here his control gave way, and he became prostrated as a result of the nervous strain.

"These were the last words Blackburn ever spoke in the United States Senate, and they were sent by wire to all parts of the world; the cue had been given, the revolution began. In Chicago that night six fires broke out simultaneously, and the rapidity with which they spread soon put them beyond the control of the fire department, so that the whole city was soon in flames; and although word was sent for help, nothing could be done to stop the conflagration which was soon raging. The people of London awoke to find their city in flames and mobs in the streets; it was the same with Paris, Berlin, Vienna; and, in short, the work of organization was so complete that, from a reign of apparent peace, the world passed to one of bloody war in the short space of an hour.

"It was not until the morning papers were read that Senator Blackburn appreciated fully the importance of his speech. He hurried off to telegraph the leaders with whom he was in touch, in the vain hope of influencing

them to prevent the spreading of the rebellion, and went to the hotel to send his telegrams, after which, as he was crossing the office, he passed a group of senators who were talking angrily of his speech and the rebellion which it had seemingly precipitated. They did not see him until he had gone quite a distance, but then they recognized his figure and cried out. It is not known who it was that fired the fatal shot; there is, however, abundant proof that it was a senator, and that he was quickly spirited away by his friends during the excitement. Blackburn was carried into an inner office and laid on a sofa, while a physician was summoned. He lived that day and all night, but he never regained consciousness; and towards noon of the following day his condition grew much worse, and he died that afternoon.

"When the cause of his death was known, the fury of the mobs on both sides of the water was terrible. The leaders had no control whatsoever, and the Chaotic Era ran its full course; mob law ruled everywhere for four months, during which time hundreds of thousands of lives were lost and thousands of millions of dollars' worth of property was destroyed.

"As I shall discuss this Chaotic Era in a lecture by itself, I shall not stop to say anything, except that it was safely passed and the new governments formed were based practically on that of the Money Republic. Of course details had to be changed to fit conditions, but the people had learned the lesson, for never after this could the circulating medium be controlled and restricted by a few individuals, and thus never could the laborer be enslaved by the capitalist."

The last part of Professor Waters' lecture I cannot remember with distinctness, for my mind was occupied during the rest of the evening with thinking of what he had already said.

CHAPTER VI.

A PARABLE IS ALWAYS INTERESTING, AND THIS ONE IS INSTRUCTIVE.

On the way home the professor entertained me with the parable of the clock-makers, which doubtless many of you have heard, but for the benefit of those less fortunate I give it as the professor told it.

"Once upon a time there were a lot of clock-makers who started to make a clock. They got a spring, a lot of wheels, and a frame; and each being anxious to show what he could do, they all had a share in the work.

"The framework they called government, the wheels they called the social or industrial system, the escapement money, the spring labor, and the little hands, called happiness, were made to show by their motion the perfection of the other parts. They were very proud of their machine when it was finished, and setting it on a pedestal which they called the consent of the governed, they brought in their neigh-

bors to see the little hands go round; and when everything was ready and all were looking, they started the machine.

"The hands began to move. 'Look, look!' cried they, 'is n't it fine? See how complex it is, see how all the wheels move!' And they began to chatter away at a great rate on the wonderful success of their labor. While this was going on, the hands of happiness stopped. 'Hullo!' said they, 'what is the matter?' and they all crowded around to examine. Soon the little hands started again, slowly at first, and then faster, when suddenly they stopped. Meanwhile the neighbors had left in disgust, well knowing that there was something wrong; and while the clock-makers were thinking over the problem the little hands kept going and stopping; only, when they did move, they never went so fast as they did originally. These periods were so rhythmic that they were given names. They were called hard times or panics, according to how long the hands kept still. 'Have confidence, the machine is all right, even if the little hands do not move smoothly,' said those who thought it a success, since the wheels which they had contributed always moved on in spite of the little hands. These men were

the capitalists whom panics never brought to the verge of starvation.

"All the rest, however, agreed that there was something wrong. They sat down to discuss it, with the clock before them, and one of them said, 'It needs a little oil,' and thereupon he proceeded to oil it. He was the man who believed in charities. But the hands stopped just the same. Another said oil did no good since there was something radically wrong. He was the man who put justice ahead of charity. Suddenly one in the circle jumped up, took the clock, and gave it a vigorous shake. At this all was chaos, everybody was afraid the machine would be spoiled, although all admitted it did n't work anyway; and after they had taken it from this man, they asked indignantly what he meant by such a thing — to which he replied that he thought a shaking would do it good. He was the destructionist, who threw bombs.

"When quiet had been restored, some one on examining the clock said that he saw the trouble. One wheel was bent out of shape, and if the next wheel was bent to correspond everything would be settled. He was the man who, seeing the abnormal concentration of capital, suggested the abnormal concentra-

tion of labor on a gigantic scale as a remedy; he believed that to form trade unions would settle things. The wheel was bent, and still panics came at regular periods. Another said that to bend the second wheel to conform to the first was to prevent the second wheel from moving freely. He was the man who said that socialism, or lack of competition, would prevent the free growth of the individual. A third said that if they did away with the frame, put the wheels together any way, and started the spring, the wheels would naturally take the best position suited to them, and everything would work smoothly. He was the anarchist, who did not believe in governments.

"'No,' said a fourth, 'for without a frame the motion could not be regulated, and all the wheels would be scattered to the four winds.' He was a believer in strong governments. 'There are too many wheels,' said the man who believed in restricted immigration. 'They move too fast,' said he who foolishly thought overproduction was the evil.

"Finally some one said that the wheels were not placed right: there were some large, strong wheels which should be placed so that they might bear more of the strain. He was

the man who believed that landowners should bear the greatest burdens in taxation, since by their monopoly they were best able to stand them. One man even suggested that the whole trouble with the clock lay in the metal of which it was composed. He was symbolic of those who claimed that the error was in human nature, and until that changed everything would have to remain as it was.

"At last one of their number, who had up to this time said nothing, got up and examined the clock very attentively; he took it up, looked carefully at the hands and all the wheels, and then said, 'Where is the escapement (money)?' He was told it was hidden away below all the wheels, in a corner. It took him some time to find it, the affair being so complicated that it was necessary to use a microscope to see how it was made, for there were so many wheels in the way that it was very confusing to tell which one was the escapement. Finally he got his eye on it, and then he set the clock down, and it started to go. He watched it until a panic happened; then, with a smile of satisfaction, he said, turning to his friends, 'Gentlemen, the trouble with your clock is that the motion of the escapement wheel (money) is clogged and

hampered; give that free play, and your little hands, happiness, will continue to move on smoothly forever.' He was the man who believed that money should be issued on all commodities, and not on one.

"The others laughed at him, but he said, 'Very well, gentlemen, you will see, for I shall construct a clock of my own,' which he proceeded to do, when, what was every one's astonishment to find that he was right! The little hands of happiness moved along beautifully and never stopped, for he had given the escapement (money) free play, in order that it should follow the direction of the spring (labor).

"What do you think of that?" said the professor.

"That is intensely interesting," said I. "I suppose the moral of it all is, look deeply before you judge."

"Just so," said the professor; "don't study the top wheel, but look below for the escapement."

Upon reaching home the professor and I went into the library and lighted our cigars. I knew that the professor would soon have something to say on economics, so I led the conversation quietly round to the point of values, and he rose to the bait like a trout and opened on me at once.

"In your century it was generally believed that the cost of production was the determining factor in values. Nothing could be farther from the truth. The relation of these two factors was but little understood in your time."

"I am afraid, professor, that you have no use for our century. You do not give us credit for the great progress we made in the sciences and arts. It seems to me that the nineteenth century was preëminently one of progress and advancement."

"One of progress, when in the midst of wealth there was the greatest poverty? When whole families lived in a single room and, toiling all day, got but a bare living? When some by birth received a right to live on the labor of others? If this is progress, what is the goal toward which it leads? An age of advancement in science and art? Did disease exist the less? On the contrary, it multiplied. Did persecution exist the less? There is but a difference in name between the persecution of the priest, the king, and the capitalist. In the midst of Christianity, religious persecution flourished simply because the surrounding nations could not come to an agreement as to how the offending nation should be divided

between them, and while they were discussing this question the slaughtering kept on. An age of advancement? You must be crazy. If my criticism hurts you, I will desist, but do not blind yourself to facts.

"Let us now look at the question of value with a view of finding out, not who is right, but what is right. I will first define some words which we shall have occasion to use frequently in the future. They are worth, labor value, and market value. The worth of a commodity is its power of satisfying human desires; the labor value of a commodity is the amount of labor necessary to produce it; and the market value is the ratio of exchange between a commodity and the dollar.

"Worth is not measurable and fluctuates only as, by the changing of the attributes of the commodity, it satisfies more or less the demands of human beings. Thus if I, by careful preservation, keep a hat for a year so that it is in just as good condition at the end as it was at the beginning of the year, the worth has not changed, but the market value may fluctuate, for this is a ratio and may be changed by altering either numerator or denominator. Thus my hat is worth as much at the end of the year, but if more hats have

been made than there have been dollars issued, it will purchase fewer dollars; therefore its market value has fallen.

"Now for a simple illustration of the relation of worth and market value to the cost of production. Let us consider a horse, a cart, and a man. The horse we will call worth; the resistance offered by the cart we will term the cost of production. As the brakes are put on, the cost of production increases, and *vice versa*. The speed of the man (who represents the capitalist) in the cart we will term the profits of capital — the greater the speed, the more profits. Now let the man get in the cart, put on the brakes, and try to start. If the horse is strong the cart will move; that is, with a high cost of production there will be profit if there is worth. Worth is the determining factor. If the brakes are taken off a little the speed will be increased, but this does not mean that the strength of the horse has been increased; that has not changed in any way. We see, therefore, that the primary effect of the cost of production is one acting only on profits. Worth must exist before either of the other factors. A cart might be made with pneumatic-tired wheels and ball bearings offering but little

resistance (thus representing an extremely low cost of production), yet there would be no speed (profit) at all if it were not for the horse. Do you understand the illustration? If you do, you will see that, given worth, the cost of production affects profits and not market value, for with a decreasing cost of production you must have an increasing profit.

"Now the effect of this is to determine more capital into this particular industry, and this causes an increase in the supply of the particular commodity produced; but if there could be a proportional increase in the amount of circulating medium, with an increased supply of goods would come an increased effective demand for them, so that as long as worth remained constant — that is, as long as the goods themselves did not deteriorate or wear out — market value would remain constant. And indeed, it may be stated as an economic truth that the price of anything should never fall because of an increased production of that thing, but only upon its deterioration. Market value and worth should fluctuate in concert, and the only way to bring this about is to increase legal tender money in the same proportion as wealth increases. Labor value, however, is entirely independent of either of

the other two terms, and although not measurable, fluctuations in it may be perceived. For instance, if with improved machines I can, with the same amount of labor, produce two hats where before only one was produced, the labor value of the hats has fallen; and this is true whether I work the same time and produce two hats, or only half the time and produce one hat; but in neither case has worth changed, provided, of course, the hats are just as good in the one case as in the other."

"But, professor, with this improved machinery and consequent fall of labor value; would there not come a fall of market value? And if so, is it not just to say that market value must fluctuate with labor value and not with worth?"

"Not at all. Market value depends upon the number of commodities produced and offered for sale, divided by the number of dollars offered to purchase, and this is entirely independent of labor value; for if, as in your day, a trust controls industry, it can, by introducing new machinery, reduce the labor value of its commodity, while at the same time controlling the amount produced, it can keep the market value constant. This is just why trusts formed. By keeping market value con-

stant and reducing labor value, profits may be increased, provided, as before stated, worth is constant; but this state of affairs always means misery to the masses, for any check to the production of wealth diminishes the amount which may be consumed, and this means unhappiness under any distribution. On the other hand, a vast increase in the number of laborers means more commodities produced, and if this is not met by an increased number of dollars, market value will fall, in spite of the fact that it takes just as much labor to produce the commodity as it formerly did — that is, in spite of the fact that labor value has not fallen; for we are assuming that machinery has not been introduced, but only that the number of laborers has been increased. So we see that labor value may fall while market value remains constant, and market value may fall while labor value remains constant; and the correct deduction is that the two are entirely independent of each other. The cause of this fall of market values, which is always bad, is, as you can now see, the limitation of the increase of money, not decreased cost of production, not decreased labor value. Do not forget this."

"But, professor, let us consider the opposite. If market value is rising, what difference will that make to the laborer, even supposing his wages will be higher? If his dollars come easier, will it not cost him more of them to live? Where is the gain?"

"Well, provided the rise of market values is caused by an increase of legal tender money and not by a decrease of wealth, there is a vast difference to him. Let me illustrate. Suppose you are a capitalist with one hundred thousand dollars, which you are willing to invest in a business paying six per cent. a year, and you find the opportunity and do invest. Now let us see what would result. Of the total amount of cash received during the year, there must be paid you $6,000 regularly, or else you will withdraw your capital. Now let us suppose that the total receipts for one year are $50,000. Your $6,000 represents twelve per cent. of the total receipts, and the remainder, we will say, is consumed in the buying of stock, minor expenses, and the wages of labor. For the sake of argument, let us say $22,000 is spent in the former and $22,000 in wages. Now let us assume the quantity of money in circulation is cut in two, thus cutting prices in halves, and making

your receipts $25,000. You may now say, that as the cost of living is halved, it will be no hardship to halve wages. Suppose, then, we give $11,000 as wages and spend $11,000 on raw material, getting thereby just as much as we could with $22,000 when prices were double. But 11 + 11 = 22, which leaves only $3,000 as interest, which you, as a capitalist, would never submit to, for that would be but three per cent. What, then, is the alternative, if $6,000 must be paid as interest and $11,000 to purchase new stock? Why, only $8,000 can be paid to laborers, so you see that while there has been a drop of fifty per cent. in the cost of living, there has been a drop of sixty-three per cent. in wages; and remember that it must always happen that with any drop in prices, either interest must drop proportionally or wages must drop to a greater extent. Dividends are always paid at the expense of labor. Bear in mind that by wages I do not mean the average pay of laborers, but the lump sum of the receipts which is expended in wages. It will often happen that because of new machinery the same volume of business may be conducted with fewer hands, in which case the average wages may be higher; but this only means men out of work: so

that whenever the sum set apart for wages decreases, either the average wage drops proportionally or the number of employees is decreased, thereby keeping the pay of some the same, but throwing other men out of work. Now it is well known that any board of directors will cut expenses in any way rather than diminish the amount of dividend.

"To go back — we also see that if $6,000 is paid upon an earning of $25,000, the proportion of the total wealth produced, which goes to the non-producer, *i.e.*, the capitalist, is now twenty-four per cent. where before it was twelve per cent., and now the laborers only get thirty-two per cent. where before they got forty-four per cent.

"On the other hand, if the quantity of money was doubled, the receipts would be $100,000, cost of stock $44,000, interest $6,000, which would leave $50,000 for wages; so that, whereas cost of living has jumped up in this case one hundred per cent., wages have jumped up one hundred and twenty-two per cent.; so that it must be evident that rising prices, caused by increased issue of money, would make considerable difference to the laborer.

"I do not mean to say that owners would

pay this increase unless they were forced to, which would be the case, however, in a short time, and would be brought about by the increased demand for labor caused by the increased issue of money; but I do mean to say that owners in your day would cut down everything rather than dividends, during as long a period as they could possibly do so, and by thus keeping interest practically a constant quantity — it being always a percentage on capital stock — they forced a greater and greater percentage of the total wealth produced away from the producers into the hands of those who live by lending, thus leading to the concentration of power with its ever-present abuses."

"But, professor, I am still somewhat in the dark with regard to values. To take an example. If you can raise fifty bushels of wheat from a plot of ground where before, with cruder instruments and methods, you could only raise one bushel, does n't that mean that the value of wheat is decreased?"

"You are confounding labor value with market value. The labor value of that wheat is less, for it takes less labor to produce it; but market value should not be decreased, for the worth of the wheat has not decreased.

When with improvements we can take fifty bushels where before we had only taken one, does that mean that each bushel will not make as many pounds of flour, as many loaves of bread — will not satisfy as many hungry mouths? Of course it does not. Worth depends on total demand, which in its turn depends upon the characteristics of the commodity to satisfy human desires, and total supply. Market value depends on effective or money demand and total supply: there is quite a difference. The total demand for anything having worth, for anything which satisfies the needs of body or mind, is unlimited. That is a fact that the people of your time could not see, and yet they had sayings which showed they had some comprehension of it, as, for instance: 'A man's tastes increase with his income,' 'Give him an inch and he 'll take an ell,' 'Man's desires are never satisfied,' 'The more he gets, the more he wants.' A sane man will not refuse a good meal for a crust of mouldy bread, and if he eats the latter you may be pretty sure it is not because he wants to, but because he has to; his actual demand is for the good meal, his effective demand for the crust of bread — or, in plain words, he has n't any money.

Now you can see at once that falling prices show that there are not enough units of circulating medium in existence; but since what there is is all there is, and since what there is has got to take care of existing trade, it follows that, as the number of units cannot increase, the purchasing power of each unit must. That is to say, each unit must handle a greater amount of trade to the great advantage of the man who owns the units.

"This question of money is of vast importance and is deeper than either free trade or single tax. To treat land as private property is morally wrong, but it is not such an evil as to limit the increase of money, for if it were not for the latter, land market values would not exist. By land market values, or economic rent, is meant that market value which is attached to land by virtue of its location. It has nothing to do with the chemical composition of the earth, but comes simply from the situation relative to centres of business; and in order to accept the natural existence of such market value, we must believe that concentration is the natural order of things. Now, we know that people like to get away as much as possible from the city, that their homes are in suburbs; that concentration leads

to low morals and filth, that people need pure air, sufficient light; that the noise and jar of the city lead to many nervous diseases; that it is not natural for human beings to crowd themselves into buildings twelve and fifteen stories high. All this we know, and it shows that there must be some artificial force at work which leads men to abandon farms and crowd into cities. Let us see what in the past has caused men to concentrate in tribes. First, it was for protection: in union there is strength; surely that is not the reason which accounts for the concentration in the nineteenth century. Then crude means of transportation caused men to live near each other for the purpose of exchanging thoughts; surely that is not the reason of your century — a century noted for its telegraph, telephone, efficient postal service, and quick methods of all kinds of transportation. What is the reason? The limitation of the issue of money is the reason. The giving to one commodity, gold, the exclusive right of acting as the circulating medium and standard of value is the cause of this concentration, this degradation in the midst of wealth. Could a man capitalize any form of wealth, he would not crowd to the city. Could a

man by producing wealth be assured of that quantity of money which is equivalent to the amount of wealth produced, he would not crowd to the city; but since you make money one commodity, gold, you give to the holders of and dealers in that commodity a privilege excluded from other men very similar to the privilege given to landowners; for if land is necessary to our existence, so is money; and since any commodity must be changed to money before it is changed back to another commodity, it is evident that, to make the first change in your century, it was necessary to go where the money was. This concentrated the population in centres which in your day were called just what they were, *i.e.*, moneyed centres. Now, with us it is only necessary that a man shall produce wealth to receive from the national government a certificate of such labor performed. With us there is no competition in the sense you understood it, for such competition means essentially a fight to turn your commodity into money before the other man can; therefore you had to be near the other man in order to keep an eye on his movements. This competition on the face of it showed that there was not enough of the circulating

medium in existence to handle the trade in existence. I wonder your thinkers could not see it.

"Although a greater evil in many ways, the limitation of the issue of money is similar to private property in land. Both land and money give to the owner increased value as time goes on, regardless of whether he labors or not. An owner of land may absent himself from his property and perform no work, yet the market value is constantly increasing; the owner of a dollar in gold may stow it away in a safety deposit vault, absent himself and perform no work, and yet the market value of that gold is constantly increasing. It will buy more commodities than it formerly did. The demand for a circulating medium increases as the total number of commodities increases; but under your system the medium itself could never increase in amount in like proportion, since it was only one commodity; therefore it increased in value. This was brought about by the use of the so-called honest dollar, and was the cause of more misery and vice than any system of tyranny which has ever been invented. Rome at her worst never caused such misery. True it is that by her system of taxation she sucked

the Mediterranean provinces dry to gratify the sensuous and vicious tastes of a few; but what is that compared to the world-wide misery caused by the system in existence in the nineteenth and twentieth centuries, which, with its head at London, spread its grasping tentacles to the farthest ends of the earth?

"Oh, well, we must be charitable, we must not expect too much from such uncivilized and ignorant people as lived in your day; and we must remember that you were just at that time passing through the third tyranny of mankind — that of the capitalist. When we look at it from that point of view, we as philosophers feel a sorrow and a sympathy for the masses and thank heaven that we were born in a civilized age."

At this point in the conversation the professor said: "Well, I guess this is enough for to-night, it is time to retire. To-morrow I will show you my horseless carriages and give you a ride in a flying machine."

I bade him good-night and went up to my room, where I was soon asleep.

CHAPTER VII.

SOME NEW INVENTIONS.

After breakfast the next morning the professor took me out to the barn to show me his appliances for heating and lighting his house, and also his carriages. His generator was peculiar in that it turned the energy existing in gas into electric energy direct. There was standing on a platform a jacketed cylinder about three feet high and a foot and a half in diameter. At one side of that was a door, near the bottom, which the professor opened for me so that I could see the gas jets striking the coils of wire; and he explained that the wire was composed of two metals of very great difference in polarity, and that these metals were so welded that, whereas in the thermopile of the nineteenth century only about five per cent. was obtained, in this almost ninety per cent. of the heat energy was transformed. I realized that here at last was the solution of the great problem of how to

generate electric energy direct from coal; and while standing before this simple little boiler my thoughts went back to my own times, when our greatest inventors were toiling night and day over this problem, in many cases simply from their love of science; and I recalled the doings of certain charlatans who claimed everything, had nothing, but succeeded in fooling the ignorant.

"This must make a great difference in the ease and comfort of living, professor," said I.

"You can hardly realize the difference. Why, housework for the women is nothing compared to what it was in your time, as all the disagreeable work is done by electricity. The washing, sweeping, mixing of food, drying of dishes, cooking, heating, cooling — everything is performed by our servant that you see before you; and when you remember that most of the dirt existed because you lived in cities where thousands of boilers poured their volumes of smoke hourly into the air, where horses powdered the streets into the finest dust, where the congested travelling spread that dust everywhere; when you come to realize that the primary causes of dirt and filth, with the coexisting disease, were concentration and the use of coal, you are forced

to ask yourself whether there is any comparison between your time and to-day, when we have sense enough to have a system which does not necessitate crowding, and when our inventors have given us a cheap and clean method of heating our houses and doing all our work."

"But, professor, city people are in general in better health than country people."

"Which only proves the adage, 'Necessity is the mother of invention.' As fast as disease springs up, a doctor springs up to cure it. To get a living a doctor must be where there is disease, therefore you find him in the city. I do not think you can truly say that the civilization of your times had blotted out disease; rather the opposite was true, it had increased the number of diseases, but it had also, directly from this fact, been the cause of the existence of that large body of specialists, the medical profession. This was only another example of the waste which went on in your times, since if it had n't been for concentration, a great many diseases would not have existed, and, therefore, a large body of men could have turned their attention to other and more profitable things; but people's thoughts seemed to be upside down then, as you would

hear that such and such a disaster was a good thing, since it meant work for men. People were always talking about wanting work or wanting to give men work; they never seemed capable of understanding that work was only a means to an end; that what men wanted was to satisfy their desires, or, in other words, to be happy. But we are diverging. Let me show you the arrangement of the gas."

"I should think, professor, it would be cheaper to generate electricity at the mines and wire direct from there."

"In some cases, where the distance is not too great, that method is used, but here it is found cheaper to pipe for gas and use individual generators. Come this way and see the carriages."

The professor then took me into another room which was on the ground floor and had large folding doors. It was much like our carriage houses. Here there were four automobiles of different capacities, each having a small electric generator burning kerosene; and the professor told me that on average level roads these carriages — which differed from any I had been familiar with in that the frame of each was built of thin steel tubing after the fashion of our bicycles, which made

a very light but strong construction — could attain easily a speed of twenty miles an hour. At the right of the driver were the guiding levers, and the professor assured me that at all times the machine was under perfect control.

We left the carriage house, and walking back, entered the kitchen; and the professor took great interest in showing me all the cooking appliances. There was a large switch board at one side, and on a table under it was an electric oven, which was nothing more nor less than a large magnesium, air-tight box, in the centre of which was a coil of wire. The food was put in the box, the door was shut, a current of electricity was turned on, and the cooking began. One very interesting feature of this was that the door of the box was glass, through which, by the aid of an electric light in the oven, the process could be watched; and there was also a thermometer inside, so that the temperature could be kept constant, and that simply by the turn of the switch; no coal, no ashes, no drafts. The machine for washing dishes stood near the sink, while the drying box was nothing but another oven, having an outlet for steam. Surely here was perfection in the culinary department.

"And your neighbors — can they afford these things?"

"Of course, why not?"

"Well, if everybody is as well off as this, the wealth per capita must be something tremendous."

"Or else the wealth per capita in your time must have been beggarly — for it 's a poor rule that does n't work both ways, and in this case the last way is the true way: it was beggarly. How could it be otherwise with the barbarous scheme of finance current; for just think a minute! The controllers of the circulating medium were the controllers of industry, and determined it in any direction; and since the capitalists cared nothing for wealth per capita, but only for the satisfaction of their silly whims, we see industry determined not in those directions for the general good, nor for the greatest production of the permanent forms of wealth, but in those directions where the benefit accrued only to some special class. The industries for the manufacture of jewelry, trinkets, novelties, energy spent in producing fast horses, fast racing yachts, and all such things, are examples of them. When a man spent $50,000 on a private racing yacht, the nine

teenth-century people did not criticise, they said it was a good thing, as it gave men work; but they did n't realize that there were thousands of other ways in which that money could be used where it would not only give men work, but would create something of real and lasting worth."

"But do you think it is wrong to indulge oneself in luxuries, professor?"

"Yes, when some are without necessities. But I am criticising the system now, and I do say emphatically that any system of civilization wherein the inequality of distribution is as great as it was in your times is radically and wholly wrong."

We had walked into the library and sat down, and the professor, continuing, said: "This room has a charm for me. I invariably choose it for work of any kind, although, as you know, my study is upstairs; but still I can enjoy myself more here than in any other room, and it is here I spend many hours of meditation. Many is the time, coming home late from the theatre, that I doff boots for slippers, coat for gown; and, drawing my chair close to the roaring fire, with lights dim and pipe in hand, my mind wanders back to the dark ages of the past; and, I must admit,

with the saddest of feelings I trace the progress of man towards enlightenment from century to century.

"Seated here by myself, undisturbed by any sound save the gentle crackling of the burning embers, I see man first as the savage, rude in all his manners, ignorant in all his acts. Those were the days when his brain was weak, when everything unknown was a god, when nature was the master, man the slave. As the embers fall and the fire brightens, I see man again. Now he appears to me different, he has evolved a step. I see him tilling the ground. He recognizes in his fellow man a comrade, he has some conception of his duty to man; he is less ignorant, he has fewer gods, simply because he can explain more things naturally. Another period passes, and the creed religion is born. He passes from many gods to one. Surely this is evolution, this is a change for the better. But man is still the slave, nature the master.

"It is not until the western civilization appears that man's condition assumes a new aspect. The Christian religion was, I think, a tremendous force in forming that civilization. When we look at that religion from a historic

point of view, we realize the tremendous power it exerted. Its teachings, acting on the Aryan race, had a beneficial effect; but it was not long before a change came. The fire burns brighter, and I see man again. He is now less the slave of nature, but alas! more the slave of his fellow men.

"Let the creed religionist of your time think of the Dark Ages, think of the tyranny of priest over layman; is he so blind as not to see the change that has taken place? What would Christ have said if he had known the torture, the suffering inflicted in his name?

"I was saying that man was less the slave of nature, more the slave of man. This was caused by the distorted views on religion, which gave into the keeping of a few priests the keys to the gate of heaven. This would be laughable if it were not the cause of the first great enslavement of the human race. But it is sad. Sad to think of are the days when creed religion reigned; sad to think of the days when humanity was ruled by an oligarchy of priests. But there came a time when humanity rebelled. No longer did the priest govern human actions. The history of our race is the history of the martyrdom of

man; the history of his fight, first with nature, then with his fellow men. The power of the priest waned, the power of the king took its place.

"Based on divine right, a few members of the human family succeeded in enslaving the rest for centuries. Their monopoly of the power to make laws was handed down from father to son, and perpetuated, as it seemed, forever. But no, not forever, for humanity awoke again, destroyed its persecutors, and reserved for itself the right of making laws, entrusting this monopoly to no one. And yet again was humanity enslaved. As trade increased, a circulating medium became necessary, and in its ignorance humanity accepted for this medium one commodity of which the quantity was limited, namely, gold. Again, based on the rights of property, did the few enslave the many. Were they priests? Were they kings? No, none of these were the masters. They neither governed religion nor did they by themselves make laws. How, then, did they enslave? Simply by controlling the circulating medium. The masters were given a new name. Capitalists they were called. They pressed on humanity the absurdity that it was they who furnished the

capital which allowed labor to work. It was the old, old story. In days gone by the priests had said, 'Your only hope of salvation lies in our hands.' Humanity finally denied this and took its own salvation to itself. Kings said, 'The only way to get just laws is to let us make them'; humanity rebelled and made its own laws. Capitalists said, 'The only way of exchanging the products of your labor for those of another is by coming to us'; and at last, for a third time, humanity rebelled.

"Through all this, one sees ignorance — ignorance shown in the conception of salvation, ignorance shown in the value and relation of laws to human happiness, and lastly, ignorance shown in the conception of a just circulating medium. My friend, how many intelligent people of your time understood the theory of evolution in its broad application to human actions? Most men and women, while realizing progress in the past, regarded the fundamental condition of things in the nineteenth century with satisfaction. They kept holidays in memory of dead patriots, and persecuted the living ones. Especially was this the case with those who, from some opportunity to which they were born, led an

idle, wasteful life. While hearing the rumbling voice of the downtrodden, they dismissed any earnest desire to change society, by laying the blame on human nature, by giving charity while denying justice; and some there were who to all these entreaties for justice turned a deaf ear and said, with Louis, 'Après moi le déluge.' Their retribution was quick and terrible; and sad to say, the innocent suffered with the guilty. But it is always thus. No great change for the good of humanity has ever taken place but some innocent people had to suffer.

"But come, come, let us not think of these things. The three tyrannies humanity has had to suffer from — priest, king, and capitalist — are too sad to dwell on; let us only think of the fact that at last they are things of the past."

"Professor, what you have said has made a deep impression on me. I must admit that under the influence of the age of money my mind had been prejudiced. It stands now before me as clear as crystal."

"Yes? I am glad it is so. But let us go out. I want to show you our money depots and our methods of issuing currency."

CHAPTER VIII.

IN WHICH THE HEAD OF THE MONEY BUREAU, MRS. BRONSON, GIVES ME MUCH INFORMATION.

From the library the professor took me back to the carriage house. We got into a light, open buggy, and soon were rolling along the smooth avenue. We passed many residences on either side, which were mostly built, like the professor's, of artificial stone; and although there was no monotony, neither was there the tremendous difference in structures which in my time denoted tremendous difference in wealth. After travelling about four or five miles, we turned off the avenue to the right, into what was termed a small side street (this is sarcasm: it was sixty-five feet from curb to curb, with twenty-foot sidewalks), and crossing one more avenue, finally stopped at a large brown stone building setting quite a way back from the sidewalk, with a fine lawn all around it. It had a large, arched entrance

with fine, heavy carving on either side, and the steps to the door were massive and broad, with elegant railings. The structure was three stories in height and had numerous windows, and this fact, coupled with its standing by itself on a plot of ground at least two hundred feet square, must have made it a delightful place to work in.

The professor got out and said, "I will introduce you to the manager of this depot, a Mrs. Bronson, and she will explain everything and take you over the building. Be careful you do not let her know the true state of affairs, for I shall introduce you simply as Mr. Pangloss."

We left the carriage and entered the building. In the centre there was a statue of Justice, a really magnificent piece of work, heroic size; and on either side broad stairways led above. These stairways were built of marble, and the floor was laid in mosaic.

We were ushered into a reception room by an officer, and the professor handed in his card and asked for Mrs. Bronson. While the usher was away, the professor told me that most of the clerks in the depot were women, the work being light and in many ways suited to them. Soon the door opened, and a lady

appeared, who greeted the professor cordially. The professor said something to her which I could not overhear, but which I knew must be an explanation of my ignorance. I was then introduced to Mrs. Bronson, and the professor said to me, "My friend, I leave you in good hands, and if you will excuse me for half an hour, I will call for you on my way home."

"Very good," said I. He then left me.

Mrs. Bronson, who was to enlighten my ignorance and initiate me into the secrets of the scheme of finance, was a woman of about sixty. She was of medium height, with dark eyes and hair, and had a very pleasant face. Like the rest of the women of this republic, she was wonderfully well preserved; one would have thought she was thirty, except perhaps that her manner and dignity showed her maturity; but this was the case with all, and can only be accounted for by the fact that the people of this day had little or nothing to worry about. A man, with simply his hands and brain, could always earn a fine living; he did n't have to be born into an opportunity, as it was in my day.

"Your friend, Professor Harding, tells me that you are unfamiliar with the finances of the country."

"Yes," I remarked, "I am woefully ignorant concerning these questions."

"Well, let me hear just what you know concerning our system. Of course you understand that market value is simply a ratio of exchange, and that the legislation of a rich government can raise or lower that ratio."

"Yes, I believe that is so."

"Also, that in order never to have the unit of value appreciate, the volume of money must increase in exactly the same proportion that wealth and trade do."

"Yes, I agree with you."

"Then of course you understand that no matter how much increase there may be in the production of commodities, their price must never fall, for if their price falls, it means that the volume of money has not increased as the volume of the other commodities has; therefore the unit has appreciated, which cannot be just. Now, it is also evident that if the volume of money must keep pace with the production of wealth, it cannot be redeemable in any one or two or three commodities, since money should be based on all — so we stow nothing in our treasury vaults. Our bills are exchangeable for any or all commodities, and they can never be redeemed, but circulate as

they should. In the old days, all the circulating medium being based on gold, there were often times when there was not gold enough to go round; therefore confidence was shaken and people hastened to redeem their bills. The treasury gold reserve was drawn, which forced another bond issue, thus keeping the country perpetually in debt. Come with me now, and I will show you our storage rooms."

I followed my guide across the hall and into a large room to the right of the entrance. Here in large wooden drawers were stored the new bills which were to be issued next month. The bills were of one, two, five, ten, twenty, fifty, one hundred, one thousand, and ten thousand dollar denominations, and were very artistic productions. The scroll work was admirable, and the vignettes of Blackburn, the father of this republic, and Putnam, its first president, were far better than any I had ever seen in my century. In most respects these bills were copies of those of the preceding republic, the only difference being that the government guarantees these bills to be exchangeable and not redeemable; that is, the government will itself pay no commodity for them, but will force a creditor to take

them as a settlement of debt; and if the creditor wishes gold or any other commodity instead of these pieces of paper, he is at perfect liberty to buy gold of any one who has it, giving in return these same pieces of paper.

"Is it well to let so much wealth lie here, with no protection but a wooden case?" said I.

"Why, this is not wealth, it only represents wealth, and who would take it? We have very heavy punishments against theft, and also many unwritten laws which are very much harder on criminality than the laws of the past were. We do this with safety, for now there is no reason for criminality. In the old days, with one hand government pushed the criminal on with barbarous laws enacted for private interests, while with the other it tried to check criminality by punishment. The people were so foolish as not to see that an ounce of prevention is worth a pound of cure. To-day we have no mercy for criminals, but we have no criminals.

"This money is sent here from the central depot where it is made, and it is kept here until distributed. Now, if you will follow me, I will show you the Recording Bureau."

I was taken then across an entry, into

another room, where about thirty women were working at desks. My guide explained that these clerks were figuring from market reports and quotations which were sent here day by day from all the district markets in the country, in order to compute the increase of wealth. These figures were examined and corrected by different experts, and on the last day of the month were sent to the central depot. Here they were received to the extent of many thousands; and the director of the mint, comparing them, easily found the mean between all these reports, and determined his monthly issue of money upon this. He then notified the different outlying depots of his decision and the amount that each depot might issue, this latter being determined by the population of males and females over twenty-one years of age residing in the district covered by the depot.

And now came the method of collecting taxes, which was simplicity itself. Before each month's issue of money was made, enough to pay the running expenses of the district and the remuneration to those working on public works was deducted, and so the taxes were collected without any trouble at all. When the day of issuance came, the

people filed into the delivery room, and after going through a certain form, as in my day we did when passing into a voting booth, their money was handed out to them and they receipted for it. In order to understand everything clearly, I put several questions to my guide.

"If every one should be allowed to come here and receive money simply on the ground of living in the district, I should think there would be many lazy ones who would do nothing but draw their salaries."

"No," said my friend, "and for this reason. The issuance of money is based on the wealth produced, and therefore if some are lazy, they hurt the pockets of the others, for they decrease the amount of money issued; and if you hurt a man through his pocket, you have hurt him badly. No, lazy folks cannot exist here. If a man or woman performed no labor which tended to the general good, he or she would be ostracised and banished, or perhaps something worse would happen. We, however, exempt married women from every duty but the care of the family, while all over fifty may receive a pension from the government, and do not work unless they prefer to do so. The money which is spent on public works is

divided equally among the workers, it being recognized that each worker is as important for the accomplishment of a piece of work as any other."

"In the old times I have read that it was absurd to divide equally, since the difference in the quality of work was so great. How is this remedied now?"

"Why, there is no difference now. We have mechanics, carpenters, laborers now, all trades are represented, but the mental calibre of our laborers is as fine as that of any other man. What a man works at has nothing to do with the calibre of his brain."

"Why, I have read that the terms applied to the laborer were always associated with the lowest class in intellectual development."

"Oh, I see what you are aiming at. You do not understand the conditions under which the brain develops. The first and primary condition is a wholesome environment, and the second is leisure for brain exercise, or reading. Now, in barbarous times, when people lived in crowded cities and the distribution of wealth was so cruelly unjust, the environment was of the worst possible kind, and added to this was the fact that this unjust distribution caused the lowest classes

to have no leisure at all. How, then, could you expect mental or moral advancement? The cart was put before the horse. It was not human nature which caused the distress and the lack of prosperity and happiness, it was unjust and barbarous laws which perverted human nature. All of our acts are the result of environment, and of that alone. Take any nation, no matter how large, take any people, no matter how different may be their intellectual capacities, and keep the wealth equally divided between them for a period of three or four generations, and that inequality of intellectual capacity will disappear. Environment is everything."

"But you allow nothing to heredity, then?"

"I allow much to heredity; but what is heredity if it is not the environment of our ancestors passed down to us through our parents? Remember the environment of today is the heredity of the future. Remember that all legislation which affects living men also affects the babes unborn, even to a greater degree than it can ever affect the legislators. That was the trouble in the past. People never thought that not only were they discussing politics of their own day, but they were shaping the politics of their children.

Because a couple were ignorant is no reason why their children should not have as good an education, environment, and opportunities as any other. Society owes it to them, and society will be more than repaid in the return made by the good citizen which will result from the payment of the debt."

"What you say is very interesting to me, and it causes me to look at things from another point of view entirely. If you distribute equally, do all live alike, then? Is there a monotony in life now?"

"Not at all. There is no law against a man hoarding if he wants to; so long as he labors he can spend or not as he pleases, and it is often the case that a man will cut down his expenses and save money in order to make some great expenditure, like travelling. Or if a man wishes to devote a year or more to the preparation of some work for his own personal gratification, he may take a year's vacation at any time, as he simply has to save enough to support him during that year. Of course if a man chooses to do this, his name is crossed off the list of people to whom money is to be issued, during the period of his vacation. When he returns to work he simply notifies us, and his name is again en-

tered. The difference between this method and the ancient one is that with us a man can live only on his principal; in no way can he get interest. Interest on money implies on its face a scarcity of what of all things should be common—a circulating medium. So while in ancient times a man, by accumulating money, could put it in land or stocks or bonds, and thus live on the rent or profits, with us rents and profits do not exist; so that a man can live only on what he is entitled to, that is, what by his industry and frugality he has saved. In ancient times one man by his industry could not only live in his old age, which is just, but he could arrange it so that neither his son, nor his grandson, nor any of his descendants, even to the tenth generation, need work, which is manifestly unjust.

"The industry of one man can justly affect his own life, but only his. The condition of every man can justly depend upon his own labor and nothing else, regardless whether he is born of thrifty or lazy parents.

"What the rich people of the nineteenth century left to their sons was not wealth, but it was a patent issued by the governments whereby the holder was entitled to take as his own some of the wealth of other people. He

was thus a legal robber, and his patent was represented by stocks or bonds. Money is not wealth and never can be wealth. It is simply a permit, backed up by the government which issues it, which allows the owner of it to procure wealth in exchange. It is simply a receipt for labor performed. If issued to laborers, it is just; if issued to non-producers, it is criminally unjust."

At this moment I saw the professor coming back in the buggy, and I was obliged to stop in the midst of my interesting conversation with the manager of the depot. She came with me to the door, and as we said good-by I promised to visit her again and talk with her on finance.

CHAPTER IX.

WHICH TELLS OF MY FIRST RIDE IN A FLYING MACHINE.

During my ride home the professor and I conversed on many subjects. He had been to a lecture on psychology, and we got talking about the sixth sense, as it was called.

"When we look out of this buggy," said the professor, "the rays of reflected light, striking the retina of our eyes, stimulate the optic nerve, and a message is carried to the brain. This modifies certain conditions prevailing there in such a manner as to give us the sensation of sight. Now, it was thought that this brain condition could not be brought about unless stimulated by the optic nerve, or by a reflex action of certain nerve cells which govern memory; but this is found to be untrue, and it is well known now that any brain condition may be produced simply by the action of some other brain, by induction, as it were; and any condition so produced is said

to result from the use of the sixth sense. This sometimes happens when the people are widely separated, and matter seems to have but little effect upon the phenomenon. To-day, during the lecture, a very interesting experiment was tried. Wehlen showed that certain vibrations of ether did have a tremendous effect on thought transference. Professor Harvey seated himself upon the stage with his side to the audience, and a Mr. Archer was seated on the other side, back to the professor. Mr. Archer was blindfolded, and then from a table Professor Harvey took up a pack of cards, one after another; and Mr. Archer had no trouble in naming all of them. A screen of baize was next placed between the two men, but the result was the same. With glass or metal, the callings were slower, Mr. Archer claiming that the impressions were not nearly so distinct; but in no case did the one fail to call the impression in the other's mind. When, however, a beam of white light was thrown across the field between the two brains, the impressions were different. Mr. Archer could in no case tell the color, although he could call the number of spots. If different shades took the place of the white light, the impressions were still different. There

can be no doubt now that one brain can converse with another through the medium of ether. Just how to perfect this art is a very deep problem, however, and I suppose it will advance slowly, as language did. Hazelit, whose book you were reading the other night, is an authority on this.

"You see now that we can explain naturally certain phenomena which were unexplainable in your day. For instance, if suddenly a man had a vision of the death of a friend — a vision so perfect in all its details as to leave a lasting impression — and afterwards found that the vision was a true and exact one, he concluded that either his friend's soul had visited him or his soul had suddenly been transported to the death scene. Neither conclusion was correct. The amount of the matter is, that from some cause or other, at the instant of death the two men's brains became sympathetic, and the dying man firmly impressed his surroundings upon his friend's brain. It was a question of thought transference."

As the professor had been talking, our machine had been running along at a good speed. We had not taken the same road back, however, and from our surroundings

I recognized the fact that we were not going home. The professor, it seems, had another treat for me, and before I knew it, we rode up to a very high tower-like structure, standing on a massive granite building, which was six stories high. An air wharf it was called; and the professor ran our buggy into the yard, and we both got out and entered the building, and were lucky enough to be able to hire an aerodrome, as the machine is called. I suppose the word is derived from the Greek and means to run on air. The professor paid at the office, and we were conducted to the top floor, which was simply an open loft, in which were several machines. A number of men were examining and cleaning the motors, and we were introduced to one of the engineers, who, when I begged to be allowed to examine the drome before we set out to fly, kindly explained everything.

This machine consisted of three kite-like surfaces, placed one above the other, with about six feet between. The framework was of steel tubing guyed with fine wire. Each surface was curved in cross section, somewhat like a bird's wing, and was seven feet broad by thirty feet long, which gave six hundred and thirty square feet as the total supporting

surface, that being sufficient, so the gentleman said, to support at least twelve hundred pounds. The machine weighed, as it stood before me, motors and all, about five hundred pounds. The body rested on three pneumatic-tired wheels, and between the lower and second surface was an open framework, on which rested the boat-like structure in which we sat. Behind us were the rudder and the two propellers and their motors, while in front was the generator. This was in the body of the machine, which could be moved at the will of the operator to any part of the open framework, this movement assuring stability. It was something like the sliding seat which was used in the racing canoe of my day, and answered the same purpose.

We all took our seats, myself opposite the professor, while the engineer sat in front to be near the guiding lever; and when the elevator came down our machine was wheeled on, and in a moment we were rising inside of the steel tower. When we got to the top, I will admit that I felt nervous and would have backed out if it could have been done with honor; but no, I was in for it, and I knew I was going to drop over the edge of that tower one hundred and sixty-five feet from the

ground. The elevator stopped when we arrived at the top, and I saw that we had been so placed on it that we were exactly facing the wind.

"Now," said our friend, "do you want to look about, or shall we sail off immediately?"

"Oh, let us go," said the professor, and before I could offer any objection, our friend blew a whistle, whereupon one side — the leeward — of the elevator raised itself, and as our machine was on wheels, it naturally rolled off the edge.

Words cannot describe my feelings during that first horrible moment of falling. The motion of a swing conveys the same, but, oh, so feebly. It seemed as if my very bowels were falling away from me, as if I was falling apart. This feeling, I am happy to say, did not last, for after a fall of fifty or sixty feet, with a turn of the lever our captain brought us to the horizontal; another turn, whirr! went the propellers, and we were in full flight. I had now got over my fright and was beginning to feel another sensation, a most delightful one. Never in all my life had I felt such a charming one. I cannot account for this except on the ground that to feel firmly supported and yet to look down and see

nothing but space between one and the earth is such a novel sensation that it is charming simply from its novelty.

I now perceived that we were going up hill, and while our little motors were working away at a great rate, the earth was gradually falling away from us. As we went higher, the wind got stronger, and the captain had to move us constantly to different parts of the frame to keep the machine balanced. The gusts were frequent and powerful and came apparently with no regularity, so that I realized that it took no mean degree of skill to keep the drome on an even level. I could now sit and look at the landscape at my leisure, and I saw, stretched almost as far as the eye could reach, the same country I had ridden through, the same beautiful streets with flowers and trees, the same beautiful houses, and no smoke, no chimneys, no wires to mar the beauty of nature moulded by man. When we had reached an altitude of 1,000 feet, the captain said it was as high as he dared to go. The wind was getting stronger, and he carried too much sail for safety. I asked him why it was not so arranged that some of the sail could be taken in — reefed, so to speak — to which he replied it was not practicable to do so in such a frail

machine as an aerodrome must necessarily be, so to take in sail one must make a landing. And now we began to circle. The motors were stopped, the propellers disconnected, and we commenced soaring. We glided in great circles of, I should say, a mile in diameter; and as we went with the wind we would drop, and then, turning into a puff, we would with our increased velocity regain our former altitude; but each circle was a little farther from the wind than the former; in other words, while always at the same average height, we were gradually drifting to leeward. This, indeed, was the very poetry of motion. This, indeed, was the triumph of man's skill, of his control over nature.

For three quarters of an hour we sailed one thousand feet above the earth, during which time we covered at least eighteen or twenty miles in circles, and this with no effort except a turn of the captain's hand, as he kept the machine balanced at the necessary angles. Think of it! There was twelve hundred pounds in mid-air, seemingly unsupported, and yet our friend could move that weight up or down, to the left or right, and this without any machinery moving at all. In my time this would have seemed little short of miracu-

lous ; still, what was so common as to see a hawk performing just such a feat ?

No other method of travel can be compared with this. Here is no smoke, no dust, no noise, no jar. Seasickness is unknown here. The calm and peacefulness of this heaven in the skies is unbroken, save by the murmur of the wires as we rush through the air. Being so far from any earthly things, we do not realize the speed with which we are moving ; and if it were not for the whistling wind, we might easily imagine that some kind fairy had placed us here in order that we might commune with nature, uninfluenced by the busy world beneath. I really think that a week spent in the air, entirely away from the earth, would be such a rest that one, on returning, would be only too anxious to get back to his haven of heavenly calm in the skies. This thought found my tongue.

" Professor," I said; " do people ever sleep in these machines and spend more than one day in the air ? "

" Yes, indeed. I have some friends who are very fond of spending weeks in that way. They, of course, have to take provisions and extra supplies, and as these weigh considerably, only two men can go in a machine. The

cabin is partly decked over, giving room for two bunks; but some one has to be at the lever all the time. The two men take turns."

"I should think their quarters would be terribly cramped."

"Well, they are; but my friends tell me that the effect of the view on the mind is partly to mitigate the feeling, for the panorama is so extensive, and the possible movement of the machine so great, that the fact of their being tied to a box the size of this is not realized. However, if they stayed over one spot the view would soon become monotonous, and then they would feel their confinement; but in a week they sometimes travel as much as 3,000 miles — not in a straight line, of course, but in circles. If one is used to taking exercise every day, he feels the lack of it, but for a man in middle age nothing gives such rest and quiet as a week spent in the skies."

As the wind was freshening up a bit and our time had expired, the captain turned our ship towards home, and with a swoop we darted down across the wind. Rising in a circle, another swoop was made, and, alternately rising and falling, the captain manœuvred our craft back towards the tower

where we had made our start. When we had got within a mile or two of the tower the propellers were started, and the professor explained that to make a safe landing this was necessary. We approached the building at high speed, and I saw that the elevator was down, and wondered what we would do, for we were now about one hundred feet above ground and travelling in such a direction that we would leave the tower on the left.

"Watch, he will signal for the elevator," said the professor.

It was so; for, as we passed the building, the captain blew a great number of short, sharp whistles, and then we began to rise. As we went higher we made a big circle to the left, and came round so as to face the tower again. The elevator was rising, but before it reached the top we had to make another complete circle, so that at the second trial it was ready, and we approached it, from a slightly lower elevation, however.

"He will rise to it," said the professor.

As we got within one hundred feet of it, a turn of the lever changed the angle; swiftly we rose, and an excellent landing would have been made if, unluckily, a heavy puff had not come at just the wrong mo-

ment. This puff drove us upward, and the opportunity was lost. Quickly the propellers were started, the angle was changed, and we were off to circle once more. A landing was then made successfully, and the captain jumped out, fastened the machine, blew the whistle, and in a short time the elevator had lowered us, bag and baggage, to the loft.

Thus ended my first ride through the air, and I can truthfully say that never, either before or since, have I enjoyed anything as I did that sojourn in the skies. My ride back with the professor in his nice little horseless buggy seemed tame, and I wondered how I ever could have been captivated with things that move on the rough, uneven earth, when I could soar forever with the eagles in the deep blue sky. My friend must have read my thoughts, for he said, "To fly is a pleasure, to ride in streets a necessity."

"True, a place for everything, and everything in its place," I said.

CHAPTER X.

IN WHICH THE ECONOMICAL ERRORS OF MY DAY ARE EXPLAINED TO ME.

After this the conversation lagged, and we were both occupied with our thoughts. A half hour went by, and we were at home. The carriage was put up, and the professor and I went into the house. The next morning we were again in the buggy on our way to visit one of the large factories, and this time we took another direction.

"Professor," said I, "you say you have no cities. Surely, all over the country the population is not spread out as it is here?"

"No, this is a thickly settled district, and corresponds to the outskirts of your city. We do not live miles apart, for that were foolish; we do not live in each other's back yards, for that were more than foolish and an artificial condition besides. Congestion (or in other words, cities) was necessary with such a barbarous system of finance current in your time, but it is not so now."

"Then you have some open country left still?"

"Of course, acres of it."

"Well, to whom does it belong?"

"Why, to nobody in particular, but to anybody who will show that he can increase the total wealth by using it. It can be used by no one for a monopoly, but by any one to increase wealth."

"Well, but how is this settled? Supposing I own a piece of ground —"

"That is not allowed," said the professor. "You may use a piece of ground, but you cannot own it, for that implies the ability to use it for any purpose whatsoever and is not countenanced for a moment. One cannot own other forms of wealth, if the use of that wealth helps to create more wealth. Any wealth that is used simply to satisfy human desires directly may be owned, such as food, clothing, dwelling houses, pictures, books, musical instruments, etc.; but the wealth in the form of machines, used to create this other wealth, cannot be owned; its use cannot be controlled by individuals."

"How can you prevent this, professor?"

"It is a very simple matter. Since the issuance of money every month is based on

the increased wealth, it follows that everybody is anxious to use these labor-saving machines in such a way as to produce the greatest amount of wealth. If, for instance, I and several of my friends are working in a building, and some one shows that if different machines and different methods are introduced more wealth will be created, why, then everybody welcomes the change, since it means more money in everybody's pocket. In your time such a change meant only money to the one who suggested it, and those turned out did not benefit by it. This was why ignorant men always fought against the introduction of labor-saving machines. However, they were not so wrong, after all. Those machines never did them any good — that is to say, relative to the benefit reaped by the private owners. They should have been called profit-making machines. Did the man who was born with no ability but to labor get more than a bare living, in spite of the so-called labor-saving machines? The wealth of a country depends upon the speed and ease of production, but the happiness of the people of that country depends upon that wealth being equally distributed. Now, it was a hard, cold fact, and even the lowest classes some-

times saw it, that when wealth was produced in greatest abundance, it was divided with the greatest injustice. This was why the common people wished to prevent the production of wealth, and therefore they broke the labor-saving machines. In your century this aversion to so-called overproduction was found in the doctrine of protection which prevailed to a greater or less extent in all the half-civilized countries of Europe and America. People should have had sense enough to see that the error lay, not in the production of wealth, but in the terribly unjust distribution. Let the medium of exchange increase in just the same proportion as the wealth does, and the wealth will be equally divided. Then the richest countries will be the happiest. The reverse was true in your time. England, for instance, by her legislation on the tariff, had made herself rich, for she had enormously increased her trade; and one must trade what one has before more can be produced. But failing to bring legislation to bear on the distribution of that wealth by increasing the circulating medium in a similar proportion, she thus grew in poverty as fast as she grew in wealth."

"I have read, professor, that private prop-

erty in land was the cause of the evil in England."

"Private property in land is but a neat way of perpetuating the inequality of the distribution of wealth, which has its origin in the limitation of the issue of money. Increase the quantity of money with wealth, so that there can be no interest, and there will be no inequality to perpetuate."

"What would have been the result of the single tax, professor, if it had been applied?"

"A very beneficial one. It would have stopped land speculation and forced owners to use unoccupied land. In many ways it would have been excellent. For instance, the tax could have been collected with the utmost ease; it would have fallen on those who, in your time, were best able to bear it. It could not have been forced on to the laborer, as the tariff was; and it would have made a country grow rich, since it would have stimulated and not hampered industry. But I doubt if it would have made any more equal distribution of wealth. It amounts to this. Under the single tax system land rent would go to the State. Now, in your time the State was composed of a body of men nominally elected by the people, but really elected by a certain

set of henchmen who worked the primary caucuses. It follows that, with such a large fund in the treasury which the single tax would collect, under the control of the few men who composed the State, the chances of its being spent wholly in a way to benefit the masses were very small. With such a fund politics would be more corrupt than ever, and land ownership would be simply transferred from the many nominal owners to the few who really controlled the State.

"To treat land as private property is morally wrong, but to say that the single tax was a remedy for all existing evils is another thing entirely. A country would grow immensely rich under it, as under free trade, but what wealth did not go to the capitalist would go to the politician, so there would still be a great inequality of distribution and therefore unhappiness. But then, inequality of distribution started long before land values existed. It started when trade started, and was caused by the fact that unwritten legislation — that is, custom — gave to one commodity the attribute of a standard of market values and allowed that commodity to circulate as a medium of exchange. It naturally followed that as trade increased, money got scarce, and the

owners of the commodity, money, lived by lending a thing which could not justly belong to them. This caused the first unjust distribution of wealth, which would not have existed except for the ignorance of the masses concerning the true function of money.

"Interest, considered by itself, is not unjust; but interest implies that there is a borrower and a lender, and the injustice lies in the fact that there should be such inequality of distribution that some exist simply by lending, while others, less fortunate in their birth, should be always borrowing."

"But, professor, if there is no natural justification of interest, how is it, then, that you can say that interest in itself is just?"

"Why, for this reason. Society is not justified in forcing one individual to help another. The laws should be so adjusted that all have similar opportunities and enjoy similar benefits. In any society in which this is true, wealth would be equally divided; and if any borrowing took place it would not be from necessity. Under such conditions interest on the loan is justifiable, since no man is called upon individually to help another gratis, by the laws of society.

"The curse of interest in your time was

the fact that it existed to such an extent that thousands of people were idlers living by lending; and the cause of this was the financial system, which limited the increase of money, thereby making it scarce, and thereby giving the owners of it the opportunity of living royally by lending.

"It was the 'honest dollar' which caused this. Consider for a moment. As population was always increasing, there was a constantly increasing horde of applicants for work. Now the 'honest dollar' made it very hard to get work, since if a dollar buys much, it is hard to get, which is evident, since such a dollar shows that the supply is very much less than the demand. From this you can easily see that monometallism was bad economics, since, no matter how well it fitted one generation, the next, an enlarged one with many more demands, always suffered by it. Monometallism was bound to cause a deterioration in any nation which upheld it, and it finally led to the Chaotic Era, as you already know. But we are at the end of our journey, and our conversation must be postponed."

The factory we reached was used for the making of shoes. It was a one-story stone affair, full of windows, and set upon a large

plot of ground some way from the street, with a pretty lawn in front, having beds of flowers on either side of the path to the door; while farther away on the right and left were broad driveways, where the drays came and went from and to the retail stores. We left our carriage, and walking up the path, entered the building, where we were met by a young woman, to whom I was introduced, and who gave us permission to look over the factory. As the professor had been here several times no guide was necessary.

In one end of the building were the finishing and packing rooms, where a great many men were working, sending off case upon case of fine shoes and boots to the market; and the most noticeable thing to me in this room was the cleanliness of the workers, their intelligence, and the quiet and order which reigned in every part.

"Who is the manager of this department?" I asked the professor.

"Sometimes one man, sometimes another. They take turns."

"Well, but does it not take more brains to manage than to simply pack shoes? And if so, are there not some who are mentally more capable of this work than others?"

"You must remember that these men who pack shoes are not unequal intellectually to any other men, having had the same environment and the same hereditary influence. Their leader for the day is simply the one who takes a general charge for that day, and since those under him are of high intelligence, his task is but light."

We moved off to another room and witnessed in detail the manufacturing process. All the work was done by machines driven by the electric current, and the men simply managed the machines. There were but few styles of shoes made; the professor telling me that as the race progressed people cared less and less for the ornamentation of their persons.

"I do not mean that we do not worship beauty in design and manufacture," he said. "We do, and strive in all our garments to get the greatest beauty compatible with usefulness. But in all things made to satisfy human desires, utility is first considered with us. This saves an immense amount of labor expended in your day on fashions — creations which subordinated the chief use of an article to an artificial use, born wholly in those who, by their wealth, stood before the foolish mul-

titude as models to be copied, and diverted industry to those channels in which perishable wealth was always created. This creating of commodities which one day had a high market value and the next day no value, because of fashion, wasted the energies of many brains and many hands. The cause back of it all was the unequal distribution of wealth, caused by the barbarous financial scheme in which those who had got more, and those who had not got nothing. With an equal distribution of wealth, which would take place with a scientific system of finance, no one could pose as a model, therefore there would be no fashions, so that this energy lost in your day is saved now.

"In the finest economic system wealth is created only in those forms that are permanent as long as the commodity itself does not deteriorate. But with you, fashion caused the creation of wealth which was only wealth while the fashion lasted, and as soon as that changed the wealth disappeared, in spite of the fact that the commodity itself lasted in good condition. There are, of course, forms of perishable wealth which have to be created only to be destroyed, such as food, drink, and all those commodities which satisfy human

desires and are lost in the consumption. Clothing must be considered in this class, although it has a longer life as wealth than the other forms. In any system where wealth is equally divided, consumption and production go hand in hand. In a system where wealth is concentrated in the hands of the few, the lack of money in the hands of the many checks consumption, and this reacts on production, so that since the stock is produced before the market is ready for it, the producer finds on opening his market that he has produced more than he can sell. He calls it overproduction. The many want, but have no money to buy with. The key to the situation is the money question, every time. All of your panics were financial panics; all of your hard times were due, not to bad harvests, but to bad finance. You were standing on your head and trying to look pleasant. Come this way and see the other department."

We went into another room and saw the first processes in making the shoes, the cutting of leather and sewing of the uppers.

"Professor," said I, "do you not think that it is unfair to give to a man that simply runs one of these machines as much money as you give to the man who is at the head of the de-

partment? And do not the heads of the departments object that they do not get more in proportion, since their work requires more brains than the other work does?"

"It is impossible to answer your question yes or no, as it would imply. In the first place, your ideas on this subject were formed in a civilization where labor sold itself to capital and was subject to demand and supply, and where money was so scarce and so necessary to life that the masses were constantly on the verge of poverty, into which the periodic hard times eventually pushed them. Now, with us money is so plentiful and so equally divided that to manage a business takes almost no skill at all. To make it clearer. In your time, when the increase in money depended on the quantity of one commodity — gold — in existence, the increase of other commodities seeking capitalization and the increase of population caused a terrible competition in all classes outside of capitalists or landowners. This competition was so sharp that it required exceptional brains and energy at the helm of the business to capitalize the stock, that is, to sell goods and manage the financial part. Therefore some proved more suited than others to this, and consequently

obtained lucrative positions. Now, with us, as I have told you before, the simple act of creating is sufficient to obtain capitalization, our money increasing with our wealth, not with our gold; it therefore takes no special skill to manage, more than to simply produce. Also, since our people have had equal advantages in education, they are as capable of managing as of simply producing. Therefore it is customary with us to change managers, and the settlement of this question is left entirely to the producers themselves. As to the other matter.

"You imply that you are astonished that more of our people do not object to equal division, since it is impossible to conceive that all work is equally hard. That also implies that you would be astonished if people did not object to a system in which men were paid while doing nothing. This is the extreme of the case. Now, how was it with you? Did you not know of thousands that lived all their lives without working one day? You lived all your life in the extreme of this system, and yet are astonished at us where every one works."

"But, professor, they lived on the stored-up labor of others. Their capital, which was

nothing but stored-up labor, was given them by their fathers, and it was to the fathers the reward of abstinence. Why is this not just?"

"In the first place, you cannot store up labor. If you could store up labor in capital, then you could regain it without any more labor being put in. But this is impossible. If all the capital in the world were left to itself, if all the stored-up human labor were permitted to produce, it would never produce a cent's worth of wealth if live men were not ready to use it."

"But the live labor only unlocks the doors of stored-up labor."

"Nonsense!" said the professor. "Let us consider one moment. Suppose by some method of labor you become possessed of $100,000. That represents, does it not, from your point of view a certain amount, $100,000 worth, of stored-up labor, no more, no less?"

"That is right," I said.

"Well," said the professor, "suppose you invest that in a plant and business, and that at the end of the first year your gross receipts have been say $40,000, your expenditures $25,000 in taxes, lights, shrinkage on the plant, power, and wages. Then by hiring your

laborers you have been able to unlock the doors of stored-up labor, as you say, to the extent of $15,000. Very well. This goes on, and in ten years your profit is still fifteen per cent., but in ten years you have got out of the $100,000 of stored up labor $150,000, and you still own the plant. Where did this increase come from?"

"Well, in ten years capital will increase of itself. If let alone, some forms of wealth, or capital, will increase and grow by nature; and since these forms are exchangeable for all other forms, this increase is certainly a justification of interest and profits."

"In no sense is it," said the professor. "I am aware that an economist of your time, in his able work upon a land tax, attempts to justify the claim to interest and profits in this manner. He casts aside the example of the French economist Bastiat, and substitutes one of his own, in which he states that if the carpenter, instead of having as his capital a plane, had had some seeds, at the end of the year he would have got back not only some seeds, but would have had some fruit also, it being a growth from his seeds caused by nature — an increase on his capital for which he did not expend labor. The able writer

forthwith draws the erroneous conclusion that since some forms of wealth increase of themselves, and since they are exchangeable for all other forms, an increase in all other forms must be and is justifiable.

"Here is the error. The faculty of exchangeability held by all forms of wealth does not, as he implies, make the characteristics of all forms similar. There are some forms of wealth which increase without labor by man being performed during the process; the labor is performed gratis by nature, and therefore all holding this form of wealth are entitled to this increase, since their taking of it does not decrease the store of any one else. But nature does not increase all forms of wealth, so that it is absurd to say that for the above reason, where labor causes the increase, it just as rightfully belongs to the so-called owner as it does when nature does the work. In the one case, human labor enters as a controlling factor and destroys completely any similarity between the two phenomena such as economists try to show through the interchangeability of wealth. In your day it was firmly believed that the capitalists were living on stored-up labor. They had a sort of inexhaustible purse, and although anybody in his

right mind must have known that the quantity of labor stored up, as you say, was a definite one, interest and profit — that is, the unlocked streams of stored-up labor — went on forever. This was a sort of perpetual motion machine, made expressly for the capitalists and used for their own benefit — the only one, I believe, that ever worked. You stated that the capital your father got was a reward of abstinence. Now abstinence is the last thing to be rewarded. Abstinence means reduced consumption, this means reduced production; and, in any civilization where the population increases, reduced production means poverty in the masses and the concentration of wealth in the hands of the few.

"There is no natural justification of interest except as relates to those few cases where nature does the work, as with seeds, etc. Interest is but the lesser of two evils, for capital is necessary for the production of wealth; and if it can only be obtained by the payment of interest or by force and bloodshed, then we can easily see that the payment of interest is the lesser evil. Realizing now that there is a vast difference between a benefit and the lesser of two evils, our object should be to bring about those conditions in which capital

may be obtained without the existence of these two evils, and this can only be done by allowing money to increase as wealth does. But to return to the question of equal wages. Did you in your time make much stir because an acquaintance of yours, who did not work nearly as hard as you, got as much salary?"

"That depended, professor, on whether the size of his salary affected mine or not."

"Exactly," said my friend. "If you were comfortably off, you did not worry much whether your friend was paid more or less than he deserved; it was only when it was hard to get a living that the size of his salary made a difference to you, especially if he was paid out of the same treasury. With us all are rich in corporal and mental necessities and luxuries, and we do not worry or feel badly over the imaginary laziness of a fellow being."

We went to the back of the building and saw the big motor drays come to the platform, load up, and move off. Everything was done with neatness and despatch, and with but little noise, the carriages running on large pneumatic tires.

"I should like to go to one of the retail stores," I said.

"Very well, we will take the automobile

and visit one." And we were soon rolling swiftly along the avenue.

"Your streets are so beautiful here, professor, it is a very great pleasure to ride on them."

"Yes, without the horse and with pneumatic tires a macadam or asphalt road requires but little care to keep it in fine condition. What ruined the streets in your time was the iron shoes of the horses continually pounding and grinding, and the narrow iron tire sinking deep where there was improper drainage. Our roads are built beautifully to begin with, and afterwards they receive but little wear."

"In building your roads, professor, there must have been considerable rough and dirty work which men of high intellectual calibre would shrink from performing; and indeed, I should think that in many branches of labor the work must have been of this kind. How did you persuade men into this branch if you did not pay more?"

"In the first place, in such work fewer working hours are considered a day's labor; and in the second place, no one man does the same work for his lifetime. The different classes or grades of work are performed by all

men at different ages. A man of high intellectual capacity does not with us object to doing work which in your day was relegated to those of a low mental status, because he gets as much pay as any one else does, fewer hours, and his position is not permanent in the trade, but only lasts say five years, while he is young and physically suited to the rough and arduous labors."

"But how is the change effected from one position to another, and who supports him between times?"

"How was it in your time?" said the professor. "A man often changed his occupation, did he not, sometimes because he had to, and sometimes because he wanted to?"

"Yes, but in my day a man scarcely dared to leave his position because it was so hard to get another."

"True, thanks to the scarcity of the 'honest dollar,' which paralyzed industry and threw thousands out of work. Now, with us, money is so plentiful and satisfies the demands of trade so fully that the demand for labor is always greater than the supply. I have never in my lifetime seen any day in which the demand for labor was less than the supply — that is, there never was a time when

a man could not leave his position and secure another easily. Indeed, I cannot see how it can be otherwise when our money increases with our wealth, our object being to increase production, while yours was to hamper and control it. The protectionists hampered it, and the trusts controlled it. This followed as a matter of course, since you were all foolish enough to hamper the increase of money."

"But how, professor, did the man secure another position? Just what did he do?"

"Why, he went around to the different managers, asking for a job, just as he did in your time, and he immediately got it; just as in your time, when business was good and healthy — which really did occur occasionally — an able man was not long out of employment."

"But if a manager gave him a job, tools or a machine must have been lent him, and did not the owner of the machine exact something for the use of it? Was this not profits?"

"The man that used the machine was the owner, and his profit was simply the money he received from the labor he put into the machine — that is, if he worked by himself. If he worked with others, his share was the

same as all the others, if all were concerned in the manufacture of one article."

"But, professor, if I save $1,000 and invent a new machine, am I not entitled to something if I lend it and thereby increase the production of commodities?"

"If you can find any one who wants to borrow and is willing to pay for the privilege, then that is a private affair; but as you can get no patents, other machines will be built, and there will be no borrowers."

"But it would take a lot of money to construct a plant to manufacture these machines in quantity."

"True, and that money would quickly be raised by the producers themselves by contributions."

"But what would be the incentive to contribute, since after the plant was built it would not belong to the builders unless they worked in it themselves?"

"Let us compare to-day with your time. To float the stock of such a company as you suggest, what was necessary? Simply a belief that the plant would produce wealth and they would gain thereby in their dividends. Is this not so?"

"Yes," I said.

"Well, it is the same now. If such a plant would increase the wealth of the nation, the amount of money issued at the next pay day would be increased, and therefore the contributors would gain thereby, although they never saw or used the plant thereafter. You must remember that besides getting money for his labor, every laborer receives money from the government periodically, the amount of which depends on the increased amount of wealth produced. In this way there is a constant stimulus to the increased production of wealth, much greater than that caused by a patent law or by any other of your laws, for the protection of a monopoly."

"But, professor, if a man only got a portion of the gain which he caused, the rest being distributed to every other person in the country, would he work hard to increase the wealth — would that not act as a brake on his energies?"

"I see you are not familiar with a somewhat similar system which existed in your time — I refer to the selling of goods on commission. By giving the seller a percentage of his sales, his energies were incited to the utmost. The difference between that system and ours is that, in your system, the

rest went as profits, while with us it is divided amongst the rest of the workers; so that while every man gets but a per cent. of the result of his labor along this line, he also gets a per cent. of every other one's.

"It must, of course, be evident to you that if we allowed these contributors to own this plant and receive something as profit on it, then those who use it would constantly have to give some of their labor to those who own it, and in a short time we should arrive at a point where a man could live by lending. This we do not intend to do, so we divide whatever increase there may come from this increase of wealth equally, and stand fast on the principle that the user, and only the user, of capital is its owner, the only one entitled to the direct return from its use. This is an underlying principle with us, and is one of the bulwarks of our democracy. This equal division of increasing wealth causes us all to grow rich together, and now there are none of us who are poorer off in material comforts and luxuries than a man worth a million dollars was in your day, and still we all have to work. This seems ridiculous to you, does it not? To be worth a million and still have to work! If you will think of it a minute, you will

understand it. To live without working, you must lend and exact payment from the borrower. Now, if everybody in the country was worth a million dollars, to whom would you lend? To live without working, there must be a lender and a borrower, rich and poor. In a country where all are equally poor or equally rich such conditions cannot exist. So with us interest has died a natural death, and the cases where there is a payment for a loan are few and far between. This is entirely the result of our scientific scheme of finance and the equal distribution of money."

CHAPTER XI.

I AM INTERESTED IN THE SALE OF COMMODITIES.

At this point in the conversation we rode up to the store. This building was quite large, although only one story high, and contained counters with the goods on exhibition and pleasant clerks behind them, ready and willing to help in a purchase. I learned here that the goods from each factory were marked, so that, when sold, the money was credited correctly, and at night, when the proper amount was deducted as charges — that is, the wages of the clerks, etc. — the remainder was handed over to the manager of the factory to be distributed among the workers. I do not mean to say the money changed hands every night ; I believe that happened once a month. It was wholly a matter of convenience.

Outside of the fact that it was only one story high, there was nothing novel here. The light came in a flood through the roof,

which was of glass in steel frames, the glass being of a peculiar toughness quite different from any I was familiar with. There were pneumatic and cable cash carriers, and the store in many ways resembled those I had seen in my own country, except that, although it was considered a large one and well stocked, it had but few things compared with some of the retail monsters I had been used to. There were also but few people in it. The cause of this was that, since no fashions existed, the number of commodities was not one half of what used to exist; therefore, there were almost no trinkets or novelties and only few designs in the various goods. I remembered the professor on finance, and said to myself, "In my day money was so scarce that commodity dealers tried in every possible way to attract the eye and thus the pocketbook: hence novelties, hence jewelry, hence trinkets, hence the great variety of designs in everything. Now money is plentiful these things have disappeared: cause and effect." I was beginning to understand things, and to realize what uncivilized brutes we were in the nineteenth century.

I wondered if the lack of these things was felt. No, of course not; for, being born with-

out them, no one realized any loss. I never cried over the lost arts of Egypt, and I doubt if any other sane man did.

There was one point on which I wanted a little information, and I put the question to the professor.

"With your system, professor, you have no standard commodity. Now, with no standard, how does a man know how much to ask for a suit of clothes? Would he not be all at sea about the question of market value?"

"Well, let us examine the case. Let us suppose a man with no knowledge of our financial scheme to be placed in this region with some clothing which he wants to sell. Suppose he gets permission by some means to open a store, displays his clothing, and then is at a loss to know the market value of his suits, for we tell him we have no standard like gold, and that our government issues paper money with promises to pay no commodity whatever, but which simply is exchangeable for any or all commodities. He sees a one-dollar bill, and as it does not mean anything to him — he being a barbarian and coming from a country where they believe in the gold standard — how is he to tell what value his suits hold in this market?"

"He cannot, professor; that is just my point."

"Very good," said my friend. "One more question. I want you to tell me what price he will ask for them."

"How can he determine that?" I said.

"He has got to, as he has got to sell his goods."

"I don't see how he can, unless he asks some one who keeps a clothing store near him."

"That is not allowable in this supposed case."

"Then he will have to shut up shop," said I.

"Not at all," said the professor. "Listen. He charges one dollar per suit and opens the door. Crowds rush in to buy. Having so many purchasers, he raises the price on his suits to two dollars, to three, to four, until finally he strikes a point where he can sell his suits, pay his bills, and be rewarded for his labor. He then has found the market value of his suits in dollars; and a standard, gold or silver, has no more to do with market value than the moon has."

"The quantity of money in existence, then, is the determining factor in market value, professor?"

"Not the quantity in existence, but the quantity offered to buy. There is a difference. If I am a capitalist with $100,000 to my credit, and walk into a stock exchange such as used to exist in your time, it makes a vast difference in market values whether I determine to use that money or to let the market alone. In both cases the money is in existence; but in the case where I do not use it, it does not change market values in the least, while if I wish I can bull or bear the market to a considerable extent by its use. The amount of money ready to purchase can never be exactly determined. It, however, fluctuates much, while the amount of money in existence remains the same.

"In 1873 the amount of legal tender money in your country was much reduced, thereby reducing this other unknown quantity, the money ready to purchase, since it must always be less than the whole amount of all money. All other market values, therefore, fell, not all at once nor in the same proportion, of course; but they fell at practically the same time.

"The amount of money ready to purchase is the determining factor in values, don't forget that. Some economists, when arguing

against the quantitive theory of money, lose sight of the fact that the amount of money ready to purchase is never coincident with the amount in circulation; therefore their arguments, based on figures relating to the amount in circulation, are sometimes wrong, being founded on wrong premises."

"If this is an unknown quantity, professor, how can it be used intelligently in economic science?"

"In this way. We can find out what action tends to increase or decrease it, and we can find out whether it is better for the masses to increase or decrease it. To increase the amount of money ready to purchase is to increase the number of purchases, or, in other words, to increase consumption. This in its turn increases production, which shows us that the most good comes from increasing this unknown quantity. A protectionist, now, would argue the other way; but then, a protectionist wants to produce as little as possible and eat most of it himself. Now, then, if to increase this amount is good, to decrease it is bad. We know that by decreasing the amount of money issued, you make the dollar buy more, but if it buys more, it is harder to get, and if it is harder to get,

it is slowly spent; and when we say that money is slowly spent, we know immediately that the amount of money ready to purchase is small, we know that consumption is checked, we know that some people have nothing to eat, that poverty and starvation are everywhere seen, that production is stopped, and that business dies!

"Good heavens! When I look back at your generation, I stop and ponder on the patience of men. It is a virtue, patience, and the people of the nineteenth century had it in generous quantities, else had they risen and struck the oppressor from the earth. You have the 'honest dollar' to thank for that."

I felt quite satisfied with what the professor had said, and I knew it would be food for reflection.

It was soon after this that we left the store and rode toward home. While riding along, I had the opportunity to watch many flying machines overhead, and I took occasion to question the professor concerning the uses of flying machines, particularly as a means of defense.

"Professor," said I, "tell me just what part the flying machine took in the formation of the Money Republic and why it was so important?"

"Well, to explain the importance of that invention, I must go back and tell you a little about laws and their enforcement. Before laws existed there was unwritten legislation, custom, you know, that is what I mean by unwritten legislation, and that legislation existed with no force behind it. It existed from a sort of passive acquiescence from all concerned. So it naturally followed that any written legislation which conformed to the unwritten was the most easily enforced. Now, to make a law is only half an action, to enforce it is just as necessary; so we see that, as the material means of enforcing it grow, a law may diverge from custom more and more with safety. The term 'custom' is applied to certain conditions which have had their origin in the past; and, although at a remote time they may have been just, they cannot possibly hold that position as the race grows older, but must constantly change as ideas change. What does for a child will not do for an adult, and it is the same with regard to the progress of the human race.

"Now the inventions of gunpowder, the printing press, the steam engine, the compass, all helped to make material conditions wherein laws could be more rigidly enforced;

it therefore follows that with these conditions laws can be made, and generally will be made, which get their origin from a moral conception of right and wrong, and have nothing to do with custom; but that law which governs the issue of a circulating medium is the hardest possible one to enforce, since trade is a primary action in human existence and took place before governments existed. We, therefore, see that the written legislation upon money is simply a record of the unwritten legislation before it. Custom declared one commodity to be money; legislation, coming after, declared the same thing — even the wisest of law makers well knowing that to declare anything else would be foolish, since they could not enforce it. No man could justly claim, therefore, that because a law existed in the past, it was just in the present. It existed then simply because it could be enforced and was suited to those times.

"Of course I know there were many acts of legislation which were called laws but were not enforced. These I do not consider laws in the true sense. Only those rules are laws which exert an influence in moulding society. Now let us come to the flying machine. In large countries, where the population is small,

it is naturally spread out over the land, and farming or grazing is the chief occupation. A farmer is near the man he trades with, but far from the seat of legislation, and it therefore follows that the rules governing his trading are such as come from custom. If, however, it could be possible for some one from the seat of government to get to the farmer at a moment's notice, and do this with little trouble and expense, it would in reality bring the seat of government as near to the farmer as the trader is. This would mean that laws could then be made from the dictates of reason and not from custom, since they could be as easily enforced as unwritten legislation ordinarily can. Now, when our little army of emigrants went to Africa, they proceeded to fence in their country, not with such absurd things as custom houses, but with police stations. They owned, either by purchase or grant, a plot of ground one hundred miles square, and at intervals of ten miles they built raised platforms, fifty feet square and fifty feet high, on the border of this republic. Later they also built them inside, so that they finally had one hundred of these stations in their country. These platforms were made first of wood, but afterwards of steel, and all

were open underneath. At the top there was a neat arrangement of sails on rods fixed so that on occasion they could be thrown into a horizontal position by moving a large lever, thus showing the sails to any patrolman above. This was a signal, and the flyer immediately descended to see what was the trouble.

"In your day one went to a police station and complained; it was the same with this republic, except that, no matter how far from the seat of government one lived, his complaint was never unanswered, for wherever he lived, he was always near a police station. Of course, with this condition of affairs laws created in Congress were felt by every one equally, and this republic was the first to have laws based on common sense and not on custom. Each station had an elevator to raise flying machines, and stairs to reach the top. Each district kept constantly on watch a man whose duty it was to patrol the skies above his station. Every man was subject to the duty, all took turns at it, and all were paid out of the treasury. There were, therefore, one hundred patrolmen in the skies, constantly guarding the nation. These men soared in circles and kept a watch not only on

their own station, but also on the patrolmen next them.

"Of course a single patrolman was not much of a power, but if he disappeared from the skies his next door neighbor started to find where he had gone, and it was 'follow the leader' until all of the hundred put in an appearance. Also, if the people near one station saw that their patrolman had disappeared and that no one else had taken his place, they sent up another man to do duty until the trouble should be settled. In this way it was possible to mass any quantity of men at any point in an incredibly short space of time, and this with no railroads or telegraph lines.

"Perhaps it will appear simpler to you if I compare it to the action of vultures when one discovers carrion. These birds patrolled the skies as we do now, and when one discovered prey and dropped, the others from all parts of the sky came quickly after him. If he found he could not get at the prey, he rose again; and this was a signal that a false alarm had been given, and the birds went back to their respective positions. If, however, the coast was clear the birds quickly gathered from all quarters. This method of protection was the means of saving the republic from many inva-

sions sent by its enemies, who looked upon the growth of such radical ideas with extreme disfavor, as tending to overturn the old system. Verily, our mental and social conditions are dependent on our inventors."

CHAPTER XII.

NINETEENTH CENTURY THEORIES IN PRACTICE.

When we reached home and had put up the carriage, the professor said, "Come into the library, and I will read you a short history of one of the eastern settlements."

I walked into that room and settled myself in a comfortable chair, while the professor took from the shelves a book and picked out the part he wished to read to me. He then sat down and said, "This is about the town called Harwich. It was the most eastern of all the police stations, and formed the nucleus of a gathering of fifty or sixty families. In the immediate neighborhood the soil was very rich and well suited to farming, so that naturally that industry flourished first. Now let me read to you.

"'This station has a local government entirely its own and entirely distinct from the other stations. It is modelled after the town meeting of our times,'—this man is an

American, writing before the Chaotic Era, you know — 'and the laws made take effect upon all who belong to this station. Any man whose name is on the list of those to whom money is to be issued comes under the jurisdiction of these laws ; but there is a limit to their power, as no station can make laws regulating the issuance of money, except so far as its own citizens are concerned. When the wealth has been increased, and the head of the government is notified to what extent, money is issued to the different stations ; and if there are people who have shown a determination not to work, but simply to live on this issuance of money, they are ostracised, their names are struck off the lists, and they therefore have by their own action injured themselves. This is done by a three-fourths registered vote in the town meeting, the defendant having previously been heard. Also no one station can live on the money issued or the wealth created at other stations, since that would decrease the amount of money the other stations received and would lead to an investigation. Of course, if disease or fire or other natural agencies are the cause of the decrease in wealth at any one station, then, upon investigation, the citizens would be relieved of

all blame, and the condition would be accepted. Also, if one station by its locality is richer, it receives no more money, proportionally, since the richness is nature's not man's.

"'The little station of Harwich for the first few years of its growth had a very peaceful time. The country had been cleared of savages and wild beasts, and, with the patrolmen above, the citizens knew they had nothing to fear from a surprise. There are a great many users of land here, but no owners, in the sense we mean. The price of all things put up for sale is regulated, as it is with us, by the ratio between the quantity of money offered to purchase and the supply of salable goods. No matter what unit is used, the price of any commodity for which money is given must be regulated by this ratio. All of our trading is simply barter, a barter of commodities for money, or money for commodities. When the different citizens make in its entirety any commodity, their remuneration is the quantity of money they can get.

"'This condition of affairs existed at first, but afterwards, when industry was specialized, a national law stepped in and declared that "whatever is the quantity of money received by sale of such goods or commodities as are

the result of the co-operation of different labors or exertions, that quantity shall have equal division amongst all concerned in the manufacture of said commodity." This law is based upon the belief, strongly held by the people of this nation, that the mental capacity of any man is dependent upon his environment and that of his ancestors handed down by heredity; they believe that by starting and keeping money equally divided, the great difference of capacities will, in the course of three or four generations, disappear. At the present writing it is difficult to predict whether in the long run the action of this law will be as it is presumed. We can see, however, the result of issuing money on increased wealth and dividing it equally, for the growth of this village is unexampled in the history of the world, except perhaps by the other villages in the republic. This is not socialism. Socialism is a kind of protectionism. It has for its object the controlling and hampering of the growth of industry, in order to keep the results more equally divided; but as the control is by the State and the State represents a few men, only nominally elected by the many, it follows that socialism is the formation of a tremendous trust, the managers of which are

elected by the people and are supposed to govern in their interests. But we find in the history of the world that to delegate to one man the control of interests is to tempt him to satisfy his own, and not the people's wishes.

"'This is not anarchy, for its primary national laws are enforced much more rigidly than with us. It is, however, more anarchy than socialism, since it must tend to develop the individual to the fullest extent, and leaves industry to be controlled by no one.

"'In our country it matters little to us whether a man in another city fails or not; but if our government were to issue money on increasing wealth, we would be hurt by a failure, no matter in what part of the country, and would therefore take a vital interest in one another's affairs. By simply changing the financial scheme, we would all become stockholders in every business in the community. When the village of Harwich became older, there were of course men who had saved money and men who had constantly lived up to their incomes. One of the men who had hoarded proposed an amendment in which the money issued should be distributed, not equally, but according to the quantity of money each one had saved. Of course we

can see his motive. Being of a miserly disposition, he wanted to increase his hoard. The discussion was carried on in the town hall. Each of these villages sent representatives to Congress, and the town vote on this amendment was simply to determine whether the representatives from this district should advocate the amendment in Congress or not. There was a tremendous vote against the amendment, the ablest men claiming that to issue to those who had would bring about class distinctions — a thing the government had pledged itself to prevent at all costs. Money issued in such a way would not be in active circulation, since there would be a constantly growing hoard under the control of a few misers, which would force concentration of population, because to get money every citizen would have to go where the misers were. It appears this is the only case on record where there was an organized opposition to the constitution in this village.

"'In another there had been some opposition to equal division of wages, but it had no strength; for the people saw that of the total number of men at work, one man's labor was just as valuable as another's. This may seem strange to my readers, but I think I can ex-

plain the ground they stood on. In the first place, every commodity which exists where trade does has three values — a utility value, more properly called worth, a labor value, and a market value. The first is an intrinsic one, depending upon the physical properties of the commodity; the second depends on the amount of labor necessary to produce the commodity; the third is an artificial one, depending upon the effective demand for and supply of the commodity. Now the economists over the way, in the Money Republic, claim that labor has two values. They claim that each laborer, no matter what he does, is as necessary as any other, and therefore all should be rewarded equally. They further state that the value we attach to labor is the market value, that is, we give labor that is performed by the greatest number of men the least reward, and *vice versa*. Now, there are certain kinds of labor that require less brain work than other kinds; and since our scheme of finance is constantly causing men to be born into poverty — giving them, therefore, practically no brain development — it follows that these lower grades of labor must be performed by the masses, and since the supply of such is large, the wages are low; but to make a man who is already

poor, labor where he gets the least reward is to constantly increase the class distinctions, so that the next child born is still poorer in both environment and heredity.

"'Now, the economists claim that to bring up a child in poverty because its father was poor is morally as unjust as to bring up a child a slave because its father was one, or to bring it up a criminal because of its father's tendencies. The two ways of preventing this are, first, the separation of the child from the parents, or, second, the constant equal division of money, so that no child can be born in poverty. The first way was not countenanced, as it was recognized that to interfere with the individual family relations was ruinous to the nation. The second way formed the basis of their issuance of money. Their best statesmen acknowledge that at first the scheme would seem unjust, but they claim — and history backs them up — that, with money divided equally, all would have to work, and with all working, the wealth produced would be so great that the hours of work would be fewer, and with less work comes more leisure; and when all have some leisure and have some labor to perform, except, of course, the aged, then differences in mental capacity will

disappear. If we look at the town of Harwich now, we shall see that wealth has increased enormously, and still we find no vast differences in mental development, such as are evident in this country. The bricklayers, the stonecutters, the carpenters, the laborers, are not in these trades because they are not capable of doing anything requiring more brain work; they are the equals of any other men, having had practically the same environment and education, but they recognize that this work must be done, and the lot falls to them, either from choice or from the fact that, by going into these trades, they can increase the total wealth quicker than by doing anything else. A very pretty little phenomenon shows itself here. Those trades in which strength is required are always carried on by the strongest men. There is no law to this effect, but everybody recognizes that if a weak man works in a trade requiring strength, he will not be able to produce as much as the strong man would in his place; therefore the weak man will be anxious to change and the strong man will also, for to each it will mean an increased amount of money. The result of this is that the different grades of work gradually become fixed, not on different men,

as with us, but on different ages of men, so that the young and strong do the heavy work, the older the light work, and the aged no work. The cause of this is not a network of laws, but it is the direct result of issuing periodically a sum of money based upon the increased wealth, of dividing this money equally, and of causing all labor to be paid equally.

"'In our day the stockholders of any concern want as president a man who is fitted in every way for the position. In the Money Republic the stockholders of the nation (that is, all the people) want every position to be filled by the man who, in that position, is capable of producing the most wealth.'

"You see," said the professor, "this writer covers the interesting points very well."

"But, professor, there is one point he does not touch on. If there were colonies on either side of this republic, and these colonies had the gold standard, was there not a great deal of trouble in settling balances?"

"Trouble? Of what kind?"

"Why, if the balance of trade was unfavorable, it was necessary that gold should move from the republic to the colonies. Now where would the republic get the gold?"

"Why, wherever it could be found. It would be bought with commodities as it was in your time. Trading is between individuals, not nations, and the so-called balance of trade means simply this. Let us suppose that I am trading with you. I live in the Money Republic and you in one of the gold standard colonies. If the balance of trade is against me, it simply means that the amount of my commodities, plus a certain amount of gold, is equal to the amount of your commodities which I wish to procure. But since gold is a commodity, it is evident that to say that at any time the balance of trade is unfavorable to either trader is an absurdity, since trade is, always was, and always must be a simple barter, a simple exchange of two things of equal market value. When the exportation of all commodities but gold did not equal in market value the importation of all commodities but gold, it is evident that gold would have to be exported if the man in whose favor the trade was supposed to be demanded this difference in market value to be paid in the commodity, gold. If he demanded the difference in any other commodity, that commodity would have to be exported. Why trade was called favorable or unfavorable in your time

was because you gave to one commodity, of which the supply was limited, the function of money, therefore making it imperative that that commodity should stay in the country; and as all other nations did the same, there was a constant fight going on to keep what gold there was from going away, and to draw in all that could be reached. This fight resulted in prohibitive duties on imports and bounties on exports, the aim being to export more goods than were imported, in order that gold might come in settlement of the difference.

"Now, in the Money Republic it mattered not the least jot whether any one commodity stayed at home or not. Their money was based on all commodities, and more or less gold or silver had no influence upon its issue. They never worried themselves about such a thing as a so-called unfavorable balance of trade. If the man they traded with demanded gold besides the other commodities, they simply exchanged some more commodities for gold, wherever they found the gold, and paid the debt. If the trader had demanded the difference to be paid in corn or wheat, the result would have been the same. Now it is evident that to settle a debt payable in any one commod-

ity, on the day the debt was contracted, will be fair to both debtor and creditor; but if the debt runs say thirty years, as some of your national debts did, a tremendous advantage lies with the creditor — for in these thirty years a great many things happen over which the debtor or creditor has no control, which affect the supply of and demand for gold — so to contract a thirty-year debt, payable in say one hundred ounces of gold, is to contract a constantly increasing debt, since in the thirty years the amount of trade increases out of all proportion to the slow increase in the quantity of the one commodity, gold; and since to gold is given the function of upholding the whole quantity of circulating medium, it follows that with the increase of trade there comes an increased demand for gold, and as this is not met by an increased supply, the market value of all money rises. From one point of view trade is but a barter of money for commodities, and that money has been constantly appreciating is conclusively shown by the fact that, at any one time in your day, a unit of money would exchange for more units of commodities than it would at a time one hundred years previous. This, of course, gave to those who dealt in money units a privilege denied to other men.

This privilege procured for its owners leisure, with leisure came mental growth, and thus the environment of the parent became heredity for the child, and it started far ahead of the child of the man who dealt in commodity units. This unequal start was, of course, exaggerated, for the child generally, or at least very often, followed his father's footsteps. Thus, in proportion as a country was old and commercially active, its people were divided by class distinctions, which grew wider every year. From this we would conclude that in that country which had existed longest as a national unit, which was the most active in trading, and which had for the basis of its circulating medium the one commodity, gold, — in such a country, I say, we would expect to find the greatest class distinctions. Our expectations come true. Nowhere among the uncivilized nations of your century do we find a nation in which the difference in distribution of wealth was so great as in England. Nowhere was there a city in which such poverty existed in the midst of such wealth as in the city of London. This city was the financial centre of the world, and nowhere did the gold standard have such power as here. But let us return to the effect of the flying machine on civilization.

"Long before the Chaotic Era — in fact, at the beginning of the twentieth century, the flying machine came into common everyday use. It never carried heavy weights; even in our day we have only a few machines capable of supporting two tons. The commonest machine is the one for a single person, weighing — man, machine, and baggage — perhaps two hundred and fifty pounds. These were quite numerous in the early part of the century, and besides their use for pleasure, they were used to enforce law. Very early in its history the flying machine occupied a prominent place in enforcing law in the large, unoccupied tracts of South America and Africa, where population was scarce and thieves and outlaws more or less common. Settlers living here were protected not by scouts and soldiers, but by aerial patrolmen, who, circling high above, gave the most efficient protection possible. When the settlers reached their destination they built, not a blockhouse or a fort, but a raised platform; and around this they placed their houses. They kept no specially trained men to act as soldiers, but every man and woman had to learn to manage an aerodrome, the labor value of which was very small. All, both women and men, took turns at patrol duty.

"In the old days the duty of the soldier was a hard one. To stand the strain required a strong man; but to drive out an enemy with the aid of the flying machine required no exertion at all and no skill except that required to fly, which every one was most anxious to attain. One did not need to know how to shoot; he simply flew over his enemy and dropped a small bomb. Women and children were soon as proficient at this as the men were, so that in this community all were able-bodied men, so to speak. Indeed, guns were seldom used, their method of hunting being unique. If, for instance, game, as deer or bear, was wanted, several started off through the air with ten or twelve small dynamite bombs weighing perhaps one pound each. These hunters flew off right into the heart of the game country and circled about five or six hundred feet high, in search of the game. When it was sighted the chase began, and it was sometimes very difficult to get in the right position for dropping the bomb. The finest shot was he who could, more often than the others, drop his bomb upon the animal's head, thus insuring instant death without mutilation of the body. You can imagine the excitement of flying through

the air, like an express train, after a deer which is running from rock to rock, in order to get in a position to give it the death blow. The excitement comes from the difficulty of handling the machine, not from the danger of contact with the animal, and the fiercest animals may be thus attacked and defeated by women and children, provided only they have the requisite skill in handling their aerodromes. This method of attack was common to birds of prey, except that they themselves dropped upon their victims, while with us a small quantity of dynamite settles the affair.

"Over these little settlements there was some one on duty all the time. All the men between the ages of twenty and twenty-five years were subject to this duty, and no person had to do patrol duty for more than six hours at a time. Each patrolman had a bugle with which he called the people to arms if he saw the need. In this way all the fighting force could be concentrated on one spot, within a hundred miles of the settlement, in less than three hours, even over mountainous or wooded country; so you see invasions or uprisings were out of the question, as they were stopped before they had gained sufficient strength to enter the country in force.

"Some time next week I want you to take a flying trip with me to a point west of Hudson's Bay, where we can enjoy the scenery. I will teach you the use of the aerodrome, and we will each hire one and have some sport."

"That will be fine, professor. But tell me, supposing the enemy has flying machines, what happens?"

"Both contestants, when they meet in the skies, come to their senses and settle the case by arbitration. When, fighting on the ground, one is wounded, he has a chance of recovering; but in the air, if anything goes wrong, it is a fall of one or two thousand feet and certain death to all, whether wounded or not, whether general or private. In the warfare of your time those who instigated it and managed it never bore the brunt of it; they were always in a safe place, and therefore warfare was often instigated by those who gained personally. But the flying machine makes every part of the battlefield the hottest part. There is no safe place; one is as liable to get killed in one place as in another, although the two places may be one hundred miles apart. There is no telling where the next bomb will strike. For this reason there has never been

a battle carried on in the air; before that point was reached arbitration always stepped in. There have been, however, single combats between patrolmen and outlaws. The patrolman almost invariably wins, especially if he is near his station, as his bugle call for help is quickly answered. There are, however, recorded cases where a patrolman has been caught by an outlaw far out of hearing, and the duel which followed is very interesting. It is like the duel of the falcon and its prey. Each man tries to get above the other in order to drop his bomb. Round and round they fly in great circles, rising higher and higher, every now and then firing their revolvers at each other. To an observer on the earth they soon appear as two dots on the sky, and finally they are lost entirely. If, however, the observer be patient, he may see the tragic end. A dull boom floats down to his listening ears, his peering eyes at last catch sight of the two dots, one still slowly sailing in large circles, and the other growing larger and larger every second. Who has triumphed? Down come the body and the fragments with a tremendous shriek and rush of wind. By the time the observer reaches the spot the body is crushed out of all semblance to a human being, and

parts of the machine are strewn in profusion on every side. It is generally impossible to recognize anything in the remains, and unless the other duelist deigns to show himself, the observer can never answer the question, which?

"These duels are very rare. The danger of a combat in the air is so great that a man will submit to almost anything rather than that; so generally, if an outlaw sees a patrolman, he gets out of sight as quickly as possible. Of course, we have no outlaws or criminals in our country now, but they still exist in some parts of South America, Asia, and Africa where the people are slow in progressing."

CHAPTER XIII.

CONTAINS A DESCRIPTION OF THE MODERN COLLEGE GAME.

It was almost a week after my visit to the store that I had occasion to talk with the professor again. He was very busy arranging our trip, and although I saw him at meals, I was left to myself most of the tine, and spent my leisure hours in riding about the city, enjoying the sights, and talking with many of the professor's friends to whom I had been introduced.

I took several trips down the harbor in the swift boats, all of which were driven by an electric motor and used oil for fuel, while the products of combustion were forced out of the stern of the vessel, thus doing away entirely with the dirt, noise, and all the disagreeable features which were present on the steamboat of my time. There was also no vibration, caused presumably by the lack of reciprocating parts in the engine; and the whole space of deck was given over to the

passengers, instead of being occupied by the house covering the boilers and engine as in my day. I must remark here that I had not yet become accustomed to seeing the air full of men, and the sight was very novel and interesting to me, for many times some fellow would come close to us, looking like a great albatross, and circle around or dash hither and thither, his small propellers whirring or his long wings flapping; and upon more than one occasion these gigantic birds landed upon our decks.

I had, therefore, more than one opportunity to examine the machines and to watch the art of soaring, which on certain days, when the wind was right, could be seen everywhere. Most of these machines were built so that on occasion the propellers or wings could be removed, leaving only the supporting surfaces; and in this condition they were used for soaring, as they were very light — weighing about twenty pounds, I believe — and easily handled. I was, as you may well imagine, very much surprised to see so many women in the air, and could not but admire the skill they showed in handling the machines.

During this week it was my good fortune to witness a game played in the air by two

college teams. The grounds were very extensive, with small artificial mounds built in various spots, and there were also small trees placed so as to cut the wind into small and baffling currents; for the game was played by men in soaring machines. At one end of the field there was a large grand stand and raised platform from which the flyers started. There were nine plots marked off by flags, located in different parts of the grounds, each plot being only one yard in diameter. Each college entered seven men, who used simple soaring machines, no motors being allowed; and the surfaces of the different machines were, in the game I saw, crimson or blue silk, according to the college to which the man belonged. They also had twenty-seven darts or arrows apiece, which had at one end a blunt point, while the other held a red or blue flag.

The game started as follows: at a given signal all fourteen men left the platform and started for the first plot, or base, as it was called, and the object of each man was to drop his arrows so that they would stick upright within the confines of the circle of little flags which marked the plot. Each man had to deposit three arrows on first base before

he could go to second base; or if he could not succeed in doing this and left first for second, he forfeited all the arrows he dropped at first either inside or outside of the prescribed area. A man could interfere with another by getting below his adversary and stopping the fall of the arrow; but if in doing this he got so close to the ground as to be unable to rise again and was forced to land, he was out of the game, and his side lost the twenty-seven arrows he started with. The game ends when all the arrows have been dropped, and that side wins which has the greatest number of arrows sticking on the bases.

The game at which I was present was witnessed by many thousand people, most of them crowding around the different bases, for it was at these spots that the skill was shown. Each college had its quota of enthusiastic followers, with their flags and their class yells; and the noise around a base, when each man was striving to drop his arrows to the best advantage and each was interfering with the other, reminded me of the college football games of my time when somebody's goal was in danger.

The day was fine and the wind, a very important factor, was satisfactory. I rode in

the professor's carriage to the starting point, and saw the different college athletes and coachers giving their last bits of advice and examining attentively the different parts of the machines, that no mishap might occur.

At ten o'clock the signal was given, and the men went on to the platform, one after the other, and made their last preparations. When the pistol was fired, they dropped off and began to circle and get altitude, in order to run clear and fast to first base. With so many men in the air, each striving to get over a certain small spot of ground before the other, the difficulty of steering and the danger of collision brought out very quickly the skill of the various contestants and caused the game to be very exciting. After the men had left the platform most of the spectators rushed off on bicycles or in carriages for first base, to see the fun ; and it is needless to say that I went along with the rest and took up a position as near the ropes as I could. This base was about a mile from the grand stand, and most of the crowd reached it before the contestants did. The first man to get there was a little fellow in a red machine, and he came along swiftly, flying low. He was greeted immediately by a great chorus of yells, toots,

and waving of handkerchiefs by his side, which must have made him feel very grand indeed. He had to drop six arrows, however, before three went on to the base, but he got away before the crowd came swooping along, and sailed off for second with many of his friends running after him, yelling themselves hoarse. After he left, the crowd around first base became frantic, for all thirteen men were rushing through in the air, and arrows were falling fast. I got very uneasy and was expecting a collision and death at any moment, but the air cleared gradually, and one by one they made off for second, either being successful or else giving it up for a bad job.

The count at this point was twenty-one arrows on the base out of thirty-nine dropped by the reds, while the blues had twenty-one out of thirty-two. As the blues had lost fewer arrows, while their count was the equal of the reds', their enthusiam knew no bounds, and cheer after cheer arose from their side. The crowd then moved off in a body to second base, and the same scene was enacted there. At the fifth base the contestants numbered only nine, three having dropped all their arrows, and the other two having been forced to land on the ground because of some baffling and un-

expected current. When the contest here was over, I returned to the grand stand to watch the players come in, which they did after covering seven bases. On the final count, with all deductions, the reds won by five arrows, or points, as they were called, and the shouting began immediately at the announcement of the score. The college boys rushed in a body to the platform and carried off their victorious athletes to the dressing rooms; while the vanquished, surrounded by their loyal, but exceedingly downcast brethren, proceeded to explain why they had failed and vowed vengeance at the next meeting. As for myself, I was exceedingly happy, not because the reds had won, but because no one was killed, and turned homeward, thinking of the times many years ago — indeed, many generations ago — when I had bought a flag and a horn and yelled myself hoarse in the midst of ten thousand people, all interested in the actions of twenty-two men and a ball on a field covered with white lines.

In talking with the professor that night, I told him of my fear of collision; but he said the number of accidents in such a contest was very small, and he did not doubt there were more men hurt in our old game of football

than in this new game which had taken its place.

"You have seen how skilfully the aerodromes can be managed, and now you will have a chance to try one for yourself, for we start to-morrow morning on our trip. I have everything arranged, the aerodrome is hired, our camping kit and heavy pistols are packed, for I think as long as you are familiar with this weapon we may as well take it."

"How is it, professor, that you can get time for this trip?"

"Why, I am taking a year's vacation. I economized on purpose to spend a year in scientific research and sport, and am now living on the money I have saved. I do not have any money issued to me until I register my name as a laborer again; but I can get no interest for my money, for there are no borrowers, and my vacation is, therefore, limited to the exact amount of money I have saved, which is as it should be. We start in the morning for the north, and I expect to be in the heart of the hunting grounds in about a day and a half. We will camp near or under a raised platform and keep our dromes upon it where they will be handy. You know that these platforms are almost

everywhere now. They are simply constructed, trees standing near are often used, and the elevator is generally worked by hand, especially where the platform is far from civilization. Our small dromes we will hire at Hudson's Bay, and from there we will continue our journey in separate machines."

"What do you give for these machines?"

"Why, Canadian paper money, which is just like our money, and which I shall buy with our money."

"But, professor, I have never managed an aerodrome in my life. As soon as I get in the air I shall probably begin to turn somersaults."

"That is impossible. We have an automatic arrangement of the wings and tail which positively limits the amount of oscillation. Within that limit you can alter the angle the machine flies at, but it is impossible for you to overturn it. You will have a chance in the flight north to manage the large machine, where you will be constantly under the eye of the engineer, and by the time we arrive at our destination on the Bay you will be able to handle a separate machine. My plan is to stop for a day or so at a place called Albany, pick out the necessary provisions, and pack them with the kit into our aerodromes; we

will not need to carry many stores, for we are going only about three hours' fly, a distance of perhaps 150 miles west in a straight line. You see, if there is anything we need, six hours' journey will procure it, although that journey will take us over impenetrable forests, swollen streams, and rugged mountains."

CHAPTER XIV.

A THOUSAND MILE TRIP IN A FLYING MACHINE.

The next morning the professor and I rode in the buggy to the aerial elevator, where we found our drome and engineer waiting for us. The boat-like structure was packed with a small tent, camp stove and cooking outfit, and some extra clothing, with the bedding. Our arms were in a rack at one side, and consisted of two heavy pistols apiece. These weapons were unique and worthy a description. They had a 32-calibre barrel, about eighteen inches long, under which near the breech was another cylinder of the finest steel, which contained liquid air held at a tremendous pressure. The bullets were of steel and fitted in little packets of seven under the breech. The arm was self-cocking. A pull on the trigger brought a bullet into the barrel, closed the breech, and liberated a drop of liquid air which expanded with tremendous force.

The initial velocity was very high, and for a short distance the arm was very accurate. The advantage of using air was that there was no noise as with powder, no smoke, and absolutely no fouling of the barrel.

I was introduced to our engineer, Herbert Olsen by name, and as the machine was all ready for the start we did not delay, but, jumping in, we were rolled on to the elevator, and were soon rising in the tower.

As we went over the edge and took that awful fall, I must say that I experienced the same terrible feeling I had in my first attempt, but I held firmly to the rail, and made up my mind to overcome it. Some time afterwards, when I had become familiar with the use of the drome, I found that I could positively enjoy the falling sensation. This is distressing to us only because in our babyhood a fall generally meant pain, and the association of the two phenomena is carried to the grave. With people that travel on the earth a fall generally means an injury, but when traveling in the air in such a perfect machine as the one I was now in, to fall becomes a delightful sensation, simply because in time it becomes dissociated with the phenomenon of pain.

We were now travelling northward at about forty or fifty miles an hour, at an altitude of a thousand feet. The boat-like structure in which we sat was decked over in front, and presented an easy shape to the wind, in order to diminish the resistance to progress, while the rear was covered with a light but tough glass, so that we could see the country below us. The engineer sat in the middle, just behind the electric generator, with his right hand on a lever which controlled the movement of the boat to different parts of the frame, so that one could easily and quickly change the line of flight; and forward of this were two bunks and some small arrangements for cooking by electricity. The whole structure, however, was very lightly built and would not stand hard usage; but, then, it never would receive hard usage unless the engineer was exceptionally clumsy in making a landing.

The country looked very beautiful from where we were. It was still early in the morning, about six o'clock, I believe; and we were now over districts more thinly settled. The sunlight reflected from the little streams and ponds, from the rich green woods and the open, velvety pasture lands, bathed everything

in a beautiful rosy tint, and was a most refreshing sight.

"Professor, in your thickly settled districts, what is the proportion of population to area?"

"Oh, at most perhaps ten to the acre. With our dromes, carriages, and electric roads, that is not too far to be from your neighbors, while such a ratio is too low to cause any filth or disease. You see our business does not drive us nearer, so the density of our population depends wholly upon the rules of health, as it should. Of course, in your time, even with a radical change in finance, you would still have to live closer than we do, from lack of efficient methods of long distance transportation; but your wisest men did not see that with material growth comes mental growth, and that the two together will inevitably destroy cities.

"It was often the case that men in your time affirmed over and over again that the evils which humanity endured were the direct results of human nature, which never could be changed. Some of your best writers, in giving their idea of a millennium, always assumed in the first place a change in human nature, bringing about true brotherly love. Now, to speak correctly, such a thing as a

millennium does not and cannot exist. It is a state of evolution beyond which no progress can be made, which is manifestly as absurd as to say that there is a line which marks the end of the universe, beyond which there is nothing. Mutability is an immutable law of nature. What is meant by a millennium is simply a condition than which, in the mind of the author, nothing better exists; but when that state arrives in the natural course of events, there will be found plenty of men brought up in the supposed millennium, who will still have millenniums to propose."

"Are there still men who think things should be different?"

"Of course there are, and there always will be. The improvement which they want is not so radical as was needed in your time. We all realize now that society is at last founded upon a just basis, since all men and women, no matter what their parentage, have equal industrial opportunities. Our reforms deal with other things which you, with your nineteenth-century brain, could not understand. But concerning human nature there is a great deal to be said. In your time those two words were used very loosely as a sort of general cause for every evil which

could not be explained in any other way. The meaning of the words was not properly understood. There are only two human instincts to which we can apply the term human nature. The first is that of self-preservation, and the other that of the propagation of kind. These are primary forces moulding man's actions; and as long as he remains physically as he now exists, we may be pretty sure that those forces will always have to be considered. No other forces can properly be termed human nature. The phenomena of action which we see in man represent simply the way in which these great instincts show themselves in social life. Now man in social life is affected by thousands of forces acting upon him through his senses. He is completely metamorphosed by the civilization in which he resides. The manner in which a civilized man's primary instincts show themselves is distinctly and totally different from the same in savagery. Ambition, industry, frugality, greed, alertness, cunning, — all are but ways in which the first great human instinct, as moulded by conditions, shows itself. Sympathy, pity, generosity, watchfulness, and lastly — the greatest of all — love, are but the ways in which the instinct of the propagation of kind appears to

us. Move a people from the temperate to the torrid zone, and you change not their nature, but the way in which that nature manifests itself in social life. The harder you make the earning of an honest living, the more the first instinct shows itself and breeds misers, criminals, and thieves. The easier you make the work of a man born with nothing but the ability to labor, the more will the second instinct rise above the first. The instinct of self-preservation saves the individual, and this instinct will prevail over all others in those civilizations in which economic conditions make it hard to earn a living. If economic conditions could be brought about whereby man had nothing to fear from his fellow men, the first instinct would give way to the second, and then would follow that brotherly love so much preached in your day. The human characteristics which are so elevating to the race are sympathy, pity, and love, and they will never show themselves beyond the family and immediate friends so long as the first instinct dominates men's actions; and this instinct of self-preservation will dominate men's actions just so long as the issue of money is limited to one commodity and land and capital are treated as private property, for while this

is so, some will be born poor and some rich, and for the poor man life means a hard and long fight against tyrants. Do away with your barbarous laws and social system, and then, no longer having to fight to be allowed to live, man's nature will grow soft, sympathetic, and kind under the influence of his second great instinct, love. With this social change a man's love will extend to all, for none will wish evil to any man. All progress towards this depends upon the increase of our knowledge; and of the sciences, political economy, which is the greatest of them all, has done the most to cause an increase of brotherly love.

"We have learned much in this science, and we have discovered four laws, only one of which was believed in in your time. These four relate to the production of wealth, and are as follows: —

"1. Stability of government is necessary for the greatest production of wealth.

"2. A condition in which industry is absolutely free from all governmental interference is necessary for the greatest production of wealth.

"3. Private ownership of any necessity tends to diminish the production of wealth,

in proportion as that ownership becomes a monopoly.

"4. Equal distribution of wealth is necessary for the greatest production of wealth.

"Of these laws the first was believed in your time by the least uncivilized nations, the second had a large number of believers, but the other two laws were not known or believed by any considerable number.

"The South American republics, so called, of the nineteenth century, serve as a good example of the folly of disobedience to the first law. In spite of their natural resources, not recognizing this law, the production of wealth was very slow and uncertain, since the government was liable at any minute to be overturned and property confiscated.

"The truth of the second law is nowhere better shown than in the tremendous growth of wealth of the English nation after it had entered on the policy of free trade.

"The third law had no expression in the politics of your time, although one of the ablest economists of the nineteenth century had pointed out very clearly and forcibly the evils of private property in land, one, but only one, of the necessities of production.

"The fourth law had no champion able

enough to convince the public of its truth, though many had complained of the unequal distribution of wealth.

"The first law was recognized before political economy was studied to any great extent; the second was discovered by Adam Smith, and his book, "The Wealth of Nations," was so convincing on this point that it started the first political movement towards free trade. He was followed by such able writers as Henry Thomas Buckle, John Stuart Mill, Ricardo, Henry George, and a host of others of lesser worth, all of whose writings did much to convince men of the truth of this law.

"Socialistic writers have, with few exceptions, recognized the truth of the third law, without, however, being able to state it convincingly; but they have always suggested, as a remedy for the evils of private property in land and capital, government control of the same, which is a direct violation of the second law; and this shows us that the socialists, if given full power, would force a country into one evil while trying to save it from another. On the other hand, destructionists, realizing the evil caused by a violation of the second law, endeavor in all cases to overthrow exist-

ing governments, thereby violating the first law. Now the sensible man is the one who can suggest a remedy for existing evils without violating any of these laws, and neither the destructionist nor the socialist can or has done this. A sensible man, living in a South American republic, would be justified in violating the second law to enforce the first, since government interference is not such an evil as instability of government. In the same way a violation of the third is not such an evil as a violation of the second law, the order of importance being as I have stated it to you, stability of government being the most important of all. Now in different countries different laws are violated, and that is why political opposition in different countries takes such different stands. One remedy may be needed in one country, while another is needed elsewhere. In South America the violation of the first law was the greatest evil; in the United States the violation of the second law was the greatest evil, and the free traders formed the greatest political opposition; while in England these two laws were understood and believed, and the endeavor there was to remedy the evils caused by the violation of the third law. As to the fourth law, since

nobody believed in it, its violation was not considered an evil, and it was not until after the birth of the Money Republic that this law was understood.

"With a thorough knowledge of history and an understanding of these laws, one can find a nation's place in the order of civilization by finding how many of these laws were recognized; and in your time England was the farthest advanced, since she more than any other nation understood and believed the first two great laws of political economy.

"But, my friend, we are losing the beauties of the scenery. Do you see the river over there on the left? How pretty the farms look beneath us! I am going to get the engineer to give you a treat. You see that heavy white cloud ahead? Well, we will rise and go through it."

The professor then spoke to Olsen, and our course was turned upward.

"Now," said the professor, "take a look below. See how clear the atmosphere is. For a few minutes after we strike the cloud we shall be able to see nothing, and everything will be drenched, but when we rise above it, the view will, I assure you, amply repay any inconvenience we may have suffered."

We were rising on an incline, and when we were about a mile away the engineer began to whistle.

"That is to warn any drome that may be in the cloud. What 's that? An answering whistle, I 'll be bound. You can't go in yet, Olsen."

The professor was right. From out of the dense mass of vapor came the faint notes of a whistle, and our course was turned to the left as we began to circle and watch.

"If we went in there now, there would be great danger of collision, so we will circle around until the other fellow comes out."

We pursued this course for some time. The other fellow evidently was enjoying himself, and was in no hurry to move. From where we were I could watch the farmers going to work, and see just below me the patrolmen circling gracefully over their respective districts.

From the south a small drome came flying towards us, and passed about two hundred feet below and to the left at a tremendous speed.

"There goes the morning's news," said the professor. "That fellow has some printed sheets which will be photographed and re-

printed in the next district. We do not have to carry thousands of papers from city to town as you did. One paper only is carried at top-most speed, and the press in the next district prints the papers, which are distributed in horseless carriages. Very soon you will see others in all parts of the sky, carrying news from everywhere to everywhere. The carrying of news has indeed almost reached perfection. Each district designates to certain citizens the task of acting as newsboys for a certain length of time, just as every one, male or female, has to patrol the skies for a certain number of hours during the year. Neither of these tasks is hard; indeed, they are just the opposite, and are performed with great pleasure. A dash through the air for twenty miles and back is, I assure you, a very great pleasure that few are willing to forego, and so it is with patrol duty. Six hours of circling above one's station is a delight, and is performed as well by women as men, by old as well as by young; no effort is required save to balance, the little motor doing all the work."

The stranger's whistle meanwhile was heard nearer and nearer, and we eagerly scanned the cloud for the appearance of the

drome. Suddenly, with a tremendous screech, it burst upon our sight. We had no time to examine it as it flew over us, but I could see that it was a little larger than ours and was built somewhat differently.

"A war-drome," said the professor. "I don't know what it is doing here, do you, Olsen?"

"I think it has been over Lake Ontario blowing up some wrecks that are a menace to navigation," said the engineer, as he turned to watch the disappearing machine. After this disturbance we made our way into the cloud without further delay.

I do not think I have ever seen such thick fog. I could not see the wings of the machine at all, and the little motors had to work at full speed to drive us through it. Behind me the invisible propellers were revolving at a tremendous rate, and from the way in which the rain seemed to strike the windows, I judged the velocity of the machine had been increased. It was only for a minute, however, for very soon we arose from the cloud into the sunshine, and then in truth was I amply repaid. The earth was no longer visible. The cloud seemed to extend from us in all directions to the horizon; we seemed to be

in a boat in mid-ocean. Our engineer turned us this way and that, dodging one billow, going through the next, riding over a third. Verily we seemed to be a monstrous fish playing with the surf. Finally, as if tired of play, we gave one final jump up and away from the water, and with a swoop, like a royal salmon, plunged in again with terrific speed. In less than a minute we were through the cloud and sailing along on our journey again.

"Good heavens, professor, what an experience! I don't know whether I am beast, bird, or fish."

The professor laughed, took off his coat, and began to pump out the boat, which had shipped quite a little water. The wings and framework dried very quickly from the swift motion through the air, and soon everything was as before.

"You see our flying machines cannot carry much weight, and never will be able to. They are excellent news-carriers, never depending upon roads or rivers, but taking a straight course over even the wildest countries. Storms do not deter them. They either go around or above them; it is only very heavy rains or mists which hamper them. They give to man a greater power to enforce laws in

wild and untravelled countries than any other invention the world has ever seen, not excepting gunpowder; and the use of these machines was the main cause of the downfall of the moneyed aristocracy, as years before gunpowder caused the overthrow of chivalry. In your day money hired an armed force to protect it, but when flying machines came into use numbers did not count; no man was safe from the bomb of the assassin. This terrible power put into the hands of the fanatic brought about that condition of affairs which led to the Chaotic Era.

"In looking at the history of those times, I do not see how society could have undergone the radical change needed without a terrible slaughter of the upper classes. It is sad to think of, but it is a fact, that if these upper classes had been allowed to exist, their inborn tendency to manage and control the lives of other men, coming from the fact that they had become so used to controlling capital that it was second nature to them, would have been a constant menace to a just social organization, and would in great part have modified the change that was deemed absolutely essential. 'Alas, that life must forever feed its growth on death!' Without a tremendous

reign of terror, such as France had in 1798, I do not believe it would have been possible for society to readjust itself to the basis of true equality."

Over Lake Champlain, at noon, we encountered a wind from the southeast which helped us a great deal, so that by night we were well up in British North America, with the river Severn under us and Lake Winnipeg on our left, about two hundred miles away. At six o'clock the professor cooked some chops and potatoes on a little electric stove, and while he was preparing the meal, Olsen gave me my first lesson in handling a flying machine.

"This lever manages the whole affair," said the engineer, as he pointed to a long rod which stood in a vertical position at his side. "You grasp it here and thereby release a catch, so that the lever is free to move in any direction. If you move it to the right, our boat travels to the right of the centre of the frame; if you move it forward, we go to the front, and so on. No matter in what direction the lever is moved, the boat follows the motion. It is similar to the electric steering gear which we use in our vessels, except that we have a lever instead of a wheel. Now if you will take my place and handle the lever,

I will stand beside you and see that you do not overturn us."

I took my seat with much trepidation and said to myself, "If a puff comes, the first the professor knows, he and his chops will come flying out of the door."

"Now," said Olsen, "a puff is coming; I can tell by the feeling of the machine. Bring her horizontal."

I pulled the lever back, and, sure enough, a strong gust took us underneath at quite a large angle; and if my guide had not thrown the lever forward immediately something serious would have happened. As it was, all the weight was thrown forward, the machine was balanced, and the puff simply raised us five or ten feet vertically.

"You must look out for that. Throw the lever back in order to catch the wind underneath the sails, but as soon as you feel it there, you must throw the weight forward, as otherwise the wind will turn us over backwards."

My lesson continued for half an hour, and by that time, much to my astonishment, I found I could control the machine perfectly

"Marvellous!" said I. "It cannot be that

I am extraordinarily skillful to learn in so short a time."

"Well, there is very little to learn, the machine is so perfect. A bird has an apparatus perfectly designed for its purpose, therefore it learns easily, and our machines are nearly perfect. Years ago, when the flying machine was crude, it took a great deal of skill to handle one, and only a few could manage it in very heavy winds, but now it almost handles itself. It is to a great extent automatic."

The professor now called me to dinner, and I left Olsen, to partake of some electrocuted chops, so to speak.

"In my day, professor, we were in such a hurry in everything we did that our methods of cooking even were influenced by it."

"I know it. A man had to hustle so to get a living that he could at most give but fifteen or twenty minutes to his meals. This led inventors to produce different foods and preparations which could be cooked instantaneously — that is, in the very worst possible way. Now, with us we almost invariably use a slow, even heat of a low degree. It takes a longer time to cook things, but they are more digestible."

"When do the watches go on to-night?"

"Well, you and I will sit up till midnight, so that we can see the moon, and then Olsen will take charge."

"Suppose it is cloudy?"

"Ha, ha! That is pretty good. Do you forget where we are? We never mind clouds, — we are superior beings, we rise above them."

On deck again, I called Olsen to dinner and took his place until, one hour later, the professor turned out. He then took the lever, and after putting on a thick coat, for it was growing colder, I stretched myself along the gunwale with my back against the little cabin, lit my pipe, and prepared to enjoy the sunset.

For the first time during the trip I came to a realization of the stillness about me. As the currents were favorable, the motors ceased to work, and we commenced soaring flight, circling at slow speed and drifting slowly northward with the wind. Below us and for miles on either side was the beautiful country forming the bed of the Severn, with all the numerous lakes and little streams glistening in the waning sunlight. We were just twenty-two hundred feet up and had the

sun some time after it had set to those on the earth.

The sunset was not as pretty as I had previously seen, owing to a lack of clouds, but still the west was one grand blaze of a glorious red, shading off through pink to yellows and greens. The professor played several tricks with the machine, rising higher and higher and giving me three distinct sunsets. Finally the sun disappeared for good, and the light faded out.

All was in darkness save for two spots — camp fires, the professor said they were, on the border of a lake — and the little points of light flickered and twinkled like two stars. Soon in the east the moon — a glorious orb — rushed into view and, rising higher and higher, cast a beautifully mellow light over the whole landscape. The scene was simply heavenly. Not a sound was to be heard save the gentle sighing of the breeze as the air rushed past the machine. Below us the rivers and lakes shone out in all their splendor, reflecting the silvery moonbeams ; while on either side fleecy clouds chased each other as if in play — dumb monsters, as it were, cavorting through the air, and to our eyes they assumed a thousand shapes, hiding the moon and then suddenly rushing away out of sight.

The air was cold, the breeze light, and the moon enchanting. The calmness, the peace, the sense of loneliness were a lullaby, and soon I was asleep.

CHAPTER XV.

I LEARN TO FLY.

The next morning the horizon was eagerly scanned as we were nearing our destination. We were closer to the earth, about eight hundred feet high I should say, and we flew over clearings, farms, and lumber camps, everything being as distinct as possible. The patrolmen were above, below, and on either side of us, slowly circling and guarding their country; and as we passed we saluted them with our whistle, and I said to the professor, "Is there any danger from invasions or raids here?"

"No. The patrolmen act only as police and have but little to do. A policeman's lot is a happy one.

"Olsen, do we not stop soon? You see there on the starboard bow is the Bay."

Sure enough, there was Hudson's Bay about ten miles off.

"I can land you almost anywhere along here," said the engineer.

"Well," said the professor, "call a patrolman and let me talk to him a minute."

The signal was given, a small drome was headed our way, and when the patrolman was within thirty feet he turned, and travelling aside of us, answered our call.

"Where can we get two small dromes?" said the professor, opening a window and putting his head out. "A friend and myself wish to take a trip west, and we need two machines."

"Go to Station 10, in this district, and I guess they can fit you out. That is over here to the left." And he pointed out the direction. We thanked him and steered for the platform. Down we dropped in circles, like a big vulture, and made a very easy landing. Fourteen hundred miles from where we started, we had been in the air but twenty-eight hours. We lowered the machine on the elevator, ran it into a yard, and then the professor and I started off to see the place, leaving Olsen in charge.

The station had but a few houses near it, but there were some stores on the main street and one hotel. We wandered up and down for a while — perhaps for exercise as much as for anything else, as our quarters in the

drome had been rather cramped and I felt the need of a little motion — and then went into the hotel, where we got two rooms. We were not long in finding a pair of dromes just suited to our purpose, but it seems that we had to change our plans somewhat. We learned at the hotel that there was no prospect of good hunting nearer than the Rocky Mountains, and this influenced the professor to change his program. We had intended to camp in one place for perhaps a month ; but now my friend thought it might be best to take a journey to the mountains, from there south into the United States, and from the State of Colorado we could made the eastward trip home. This necessitated buying two dromes especially made for travelling in wild countries.

In the morning, after our landing, we went to our machine and had our baggage carried to the hotel ; we then said good-by to Olsen, who started to fly back soon after we left him, and the professor took me to look at our new machines, which, I must say, were as finely made as any I had ever seen. Only the finest steel, the best silk, and the toughest wood were used, and the surfaces were in three tiers, spreading fourteen feet from tip

to tip; while at the rear were two very small motors, driving screws, and the boat-like structure was so made that the bottom would, upon touching a spring, drop, permitting a landing on the feet. Each machine was built so that at night, when in camp, the boat became a bed, and the man slept with the protection of the surfaces instead of a tent. The whole affair when packed with our kit weighed seventy-five pounds. The balancing was controlled by one lever which moved the boat and tail, and after explaining the machine, we were taken into a large field and taught how to manage it.

I got into the boat; the machine was lifted so that the straps rested on my shoulders which supported the weight, and I was then standing with the boat on a level with my waist, the bottom, of course, hanging vertically.

"Now," said our friend, "turn into the wind, start your motors, and when you get going at a pretty good pace just raise the front edge of the wing a little."

I felt nervous. It was the first time I had ever been harnessed into such a mess of machinery, and I must say I was frightened. With others in a large machine it was different, but now everything, perhaps my life, depended

upon my skill in moving the lever. However, I mustered my courage, turned on the electricity, and started to run. The moment I moved, the weight seemed gone from my shoulders; the air did all the supporting, and as I began to go faster and faster I was lifted higher and higher until only my toes touched. Raising my wings then and turning on the current, I arose with a burst of speed and soon was sailing fifty feet above the houses. I drew in my legs, pulled up the bottom of the boat, and then looked about me. My confidence was now completely restored, for the machine answered the touch so quickly and I felt such support that I had no fear whatsoever; and turning in a great circle I came back and landed near the professor, coming down slowly until within a few feet of the ground, when, checking the momentum, I tripped the bottom of the boat and landed on my feet.

"Well," I said, "I am sure any one can manage that; it is simple enough, and the sensation is delightful."

"Yes, it will be very easy until you get into the mountains, where you will meet cross currents and gusts; then, I tell you, it takes as much skill as it does to sail a catboat on a

lake full of islands. You cannot tell when the next gust will come, and this will introduce an element of danger which will call forth all your ability."

Our dromes were so satisfactory that the professor bought them outright ; and our friend said he would have them examined to see that everything was in perfect order, the machinery well oiled, and our kit packed snugly away. We then went back to the hotel and spent the rest of the day in studying maps.

"I shall carry only a small stock of provisions, mostly canned goods," said the professor. "We will depend upon our own skill for fresh meat, and it will be very strange indeed if we cannot get a deer or two, or perhaps a bear."

"How long a time will our journey take us?"

"Well, that will depend on circumstances. I am in no hurry, and we can take things leisurely."

"Shall we camp by ourselves or near some station?"

"I was just now trying to find on this map what were the best plan for us to pursue. I think we will stop at this station first, and then we will go direct to the mountains and camp

wherever we happen to be. That will be freer and in many ways more pleasant." I, of course, was willing to leave everything to the professor, and all was prepared for the start on the morrow.

I was up bright and early on that beautiful September morning, and was sitting on the piazza when the professor came down. "A fine morning for us, is it not? I tell you, a day's fly in such weather as this braces a man up in great style. Come in and have breakfast. I have settled the bill, and as soon as we can we must get into the air."

We ate a hearty meal, and taking a light lunch the cook had prepared for us, which we would eat while flying, we hurried to our machines, where we found everything ready. The canned provisions with the cooking utensils were stowed away in the boats, also some extra clothing, medicines, and other necessities.

"Your kerosene will last a month," said our friend, "and if you can manage to soar most of the time it will last much longer; but you must be careful not to run out of it, for if you did, and landed on level ground, you would be as stranded as a dismantled ship." We made our final preparations, stepped into the harness, and raised our machines. The

professor started first and with a short run rose gently from the ground, and flying higher and higher went off towards the west. I soon followed, and caught him about eight hundred feet up. "The air is fine, professor." "Yes, very exhilarating. We must make good time, for I want to be at our destination before night."

Our trip was now very similar to the one from the States. The little silvery lakes below us, cosily nestling in the deep valleys heavily wooded with tall, stately pines, shone like jewels in the morning sunlight. On some of the hillsides the foliage had begun to change, and from our position the whole earth seemed one grand oriental rug of fantastic design, but full of beautifully rich and soft colors. I was lost in the contemplation of these natural beauties.

The professor kept about one hundred yards ahead, and I could see by the revolution of the screws that he was going pretty fast. However, I had no trouble in keeping up with him. We passed one or two patrolmen and a few private dromes, and on one occasion the professor called my attention to a chase which was going on between a hunter and an eagle. The man was in a small drome and was about

two hundred yards behind an enormous eagle, which was flying as hard as it could for the shelter of a thick wood about a mile away. The man gained slowly, and the chase grew very exciting. I judged the range was too far to use the pistol, although through my glass I could see that the man held it in his hand, every now and then aimed, but apparently thought better of it, for I heard no report. Just as the eagle reached the woods the man aimed again, and this time the feathers flew, but still the eagle kept on, and before the man could fire again the noble bird settled down into the thick branches, hid himself in the depths of the forest, and the man rose and flew away, apparently not caring to wait until the bird showed himself again.

"Chasing eagles is great sport," said the professor. "You cannot possibly catch one, you know, for they turn so quickly that they will always elude the grasp; but you can, however, shoot them on the wing. I frequently chase them to within fifty feet and then fire."

"Did that man fire? I heard no noise."

"Of course you didn't. He uses liquified air. We never use powder."

At noon we ate our lunches, and before

sunset the police station came into view. Nothing happened during the rest of the afternoon, and we came to a landing about five o'clock. This station was settled only by hunters and trappers, and there were only a few cabins near by. We set our machines down in a vacant field, and after pegging down the guide ropes to hold them firmly in case of wind, we went up to a large cabin which the professor said belonged to a hunting club of which he was a member, and arranged for dinner. The cabin was a two-story affair and very large. On the first floor were kitchen, dining room, and parlor, with an enormous open fireplace; and on the second floor were bunks to accommodate members and their guests. As we had an hour to ourselves before dinner, we wandered out into the country to look round.

"Does the same system of finance prevail here as in the States?"

"Why, of course. If any man here shows that he has increased the wealth of the country, necessarily he is entitled to his share of the money issued on that increase."

"It is all very well to say that he is entitled to it, but how is the increase determined in this barren country, where there is but little manufacturing?"

"Why I thought you understood that perfectly. Let me make it clear once more. If the sum of the prices of all salable goods at one time is 1,000 units and a month later is 1,020 units, it is evident that the increase has been twenty units. Don't get confused at our word unit. It is equivalent to your word dollar, except that it stands for no special commodity. Reports are sent east from this station as from all others, and, if after a certain time the wealth represented does not increase, there is naturally an investigation, as this lack of increase means that every one gets less money monthly than he otherwise would. If the cause of this condition is in nature it is accepted; if it comes from idleness or a desire of the residents of one station to live on the wealth produced by the other stations the issue of money to that particular station is discontinued, generally by a popular vote. Of course the amount of money issued to any one station is dependent upon the number of workers, male and female, over twenty-one years of age, in that station. This number is determined by popular vote, and any man who by any act brought himself into popular disfavor would be very liable to have his name erased from the lists for a

period. As our population is spread over the country, we have a pure democracy. A representative government is necessary only when population concentrates itself in cities."

"But your national government is surely representative?"

"Not as you understand that form of government. There are very few acts our government is called upon to perform. If there should be any act which is of such importance as to need national attention, then it would be put to a popular vote and decided in that way."

"But the expenses and duties of the government? Who attends to the appropriations? How is it decided what shall be spent to deepen this river, to improve that harbor, to build up a navy, to care for lighthouses, and so on?"

"Well, it is strange that you cannot understand. I suppose it is excusable, however, since you were born in the nineteenth century. To do that which you mention only two things are necessary — labor and material. Do you follow?"

"Yes."

"Well, since no one by ownership can monopolize material, it is evident that can

be obtained without any trouble ; and the only other question is, Will the laborer be willing to work ? Now, what was it that set labor at work in your day ? "

" Why, money, of course. The laborers worked for their pay."

" Exactly. The same is true now. If to deepen a river, improve a harbor, build up a navy, and keep a lighthouse service will aid in any way to produce more wealth, either directly or indirectly, that is, by improving the methods of transportation, then to do that work will, evidently, increase the periodical issue of money ; and since every one profits by that increase, those works, if necessary to the public good, will be undertaken without any national action, and, if not necessary, industry will stay in more productive channels. A very strong example of the reverse condition existed in the States in your time, when industry was forced into unproductive channels. The doctrine of protection prevailed then. Protective tariffs, by preventing foreign trade, raised the price of American goods by just the amount of tariff levied. This raise was an extra profit to the manufacturer, so that the strongest force behind the doctrine of protection was the selfish interest of the manufacturers.

"But there was a condition of affairs brought about partly by protection, especially in the days when the country was young, and partly by the scarcity of population and natural productiveness of the soil, which gave protection a popular following. This was the more equable distribution of wealth and the higher wages paid to American labor than was paid to foreign labor in Europe. The exact cause of these two facts was not clearly understood, and therefore, the latter condition existing with protection, this doctrine was assumed to be the cause of it.

"Now, the fundamental effect of the doctrine of protection is to prevent the growth of trade."

"It only affects foreign trade, professor."

"That is not so. It hampers home trade. If the people on the border of a country are allowed to increase their trade with their neighbors who live over the line, it means they must increase it with their own countrymen, as otherwise what will they do with the extra wealth derived from this increase of trade? The absurdity of the proposition that a protective tariff is necessary to stimulate home industries ought to be evident on its face, it seems to me. Just think a mo-

ment. Suppose I live half a mile south of the frontier. North of me a foreigner lives, a mile away. To the east, south, and west live my countrymen, each a mile from me. Now, from the proposition I just stated to you, I assume — and of course no one will deny — that it is a good thing to increase home industries. Now, suppose that I trade with my friend in the east so much that in order to get rid of the goods I receive from him for some I need more I have to trade with my friend in the south. There is a case where an increase of trade with one man brings about an increase of trade with another man. And this always happens when trade increases anywhere. Is there, now, any man in his senses who will deny that if I choose to increase trade by trading with my friend in the north instead of trading with my friend in the east, neither of my friends in the east, south, or west will profit thereby? What difference does it make where a man lives? Individuals, not nations, are traders. No, protection has hampered, not stimulated, industry; but if you hamper industry and prevent its growth, you will keep wealth more equally divided and limit the foundation of class distinctions, because when industry is

young, the amount of circulating medium is very large in proportion. This means that the dollar is easy to get, therefore it cannot be controlled by the few, therefore there is no monied aristocracy; for a monied aristocracy means a class of beings who live by lending that which is absolutely essential to life and of which they have a monopoly — that is, money.

"There is, however, a limit to this. With an increasing population trade must increase, so it is only when a country is young that the force caused by protection acts; and we see that at the end of the nineteenth century this force was dead, class distinctions existed, and the popular following of protection was growing less and less. Wages in your country were sinking to the level of those in Europe during that decade, and early in the twentieth century it became evident to the popular mind that protection protected nobody but the monopolist manufacturer. Of course then it was immediately overthrown. The protectionists up to that time had always deluded the people with the belief that if you pay a manufacturer a big profit, he will, out of the kindness of his heart, pay big wages. When your country was young and men scarce, he paid big

wages, but it was not from the kindness of his heart, — a protectionist is not that sort of a man; it was because he had to. When the population increased he could get men easier, and wages fell, which was natural in a civilization where labor was treated as a commodity to be bought and sold by the capitalist."

"Well, professor, you mentioned a condition in which the dollar was easy to get, and which you say is a beneficial one. Do you mean to say that high prices are a good thing?"

"That depends upon what causes the high prices."

"Explain."

"Why, price — or rather, market value, which is a better term to use — depends upon the ratio between the quantity of goods offered for sale and the quantity of money offered to buy. Mind you, the amount of money in existence, or in circulation, as it was erroneously called in your day, has little to do with this. I might own a million dollars and have it stowed away somewhere so that it could not possibly affect market values, but it would be in circulation, as you understood the word. Now, decrease the quantity of goods

and, other things being equal, market value will go up. The same will happen if, instead of the latter, you increase the quantity of money. The former is the way the protectionists would keep prices up, the latter the way the bimetallists would do the same. Between the two it is easy to choose. As population increases trade must increase, therefore we cannot decrease the quantity of goods offered; the other is the right way."

"But are high prices, even from this cause, a desirable thing, professor?"

"Yes, the more money, the weaker the syndicates that try to control it. It is like everything else — a little may be controlled, but not a large amount."

"But how are people to get this money? Of course I understand how your system works; but in my time, when the people were not prepared for such a radical change, how would the masses gain by an increase in the amount of circulating medium? If the owners of silver mines were allowed to have all their silver coined free, as gold was, how would it benefit any one but those owners? Why could you not say of them, as of the protectionists, They could pay higher wages, but they will not?"

"Well, let us examine for a moment. When the United States refused to coin silver free and in unlimited amounts, the largest buyer of silver in the country refused to pay one dollar for 412 grains of silver, and therefore the price to other buyers — that is, the market value — fell. The price of anything in your day generally fluctuated around that of the heaviest buyer. Silver declined to fifty cents per 412 grains. Now, supposing an owner of bullion gets from his mines 100 pounds a day, just for the sake of an example, and supposing, at fifty cents per 412 grains, it costs him 90 pounds of silver to get out the 100 pounds. If he could get from the United States one dollar for 412 grains, it is evident it would cost him only 45 pounds of silver to get out the 100 pounds. Now, after he has sold the extra 45 pounds, what is he going to do with the money? He will certainly use it, he is not a fool. He will invest it in some other business to make it pay him interest. Now, if he does not pay his men more — and he will not do so — he cannot help but increase wages, for by starting other businesses he will create a demand for labor which will raise the price; and in fact, any increase of legal tender money will always

raise wages by increasing the demand for labor."

"But a protectionist, with his extra profits, would do the same."

"He cannot increase wages; he can only divert wages from some people to other people, for the money which he got was in existence before he got it. But the free and unrestricted coinage of silver would have caused the same result in your country as would come from a great inundation of foreign capital seeking investment. The gold men of your time were very glad when foreign capital was invested in their country, and spoke of the prosperity which would follow a condition where foreign capital was not afraid to invest; how much better then to have the investors in one's own country, then interest stays at home. This could easily have been brought about by free silver.

"Early in the twentieth century the United States became very similar to the tributary states of the Roman Empire. Having the gold standard, the capital used in your country was owned abroad, which would not have been the case if you had been on a silver basis; and Europe constantly drained the United States as the city of Rome drained

the outlying districts. This is our main reason for calling the nineteenth and twentieth centuries the Era of Degeneration. It was the era when the older civilizations led a life of profligacy, living on the interest drawn from the younger; and, as in Rome this decay led to the downfall of the Roman civilization, so this Era of Degeneration led to the Chaotic Era — the downfall of the western civilization in which the rights of property was the abiding watchword. Then followed our civilization with our scientific scheme of finance, giving to each, no matter what his birth, equal opportunities. I suppose our civilization will have its rise and fall just as others have. There is nothing perfect — everything is constantly undergoing a change. Mutability is an immutable law of nature. But here," said the professor, "we must stop talking and get back to dinner."

CHAPTER XVI.

THE MYSTERIES OF FINANCE UNRAVELLED.

After dinner we were entertained with hunting stories; and seated, smoking, around the fire, it was very enjoyable listening to the anecdotes of the various members, who, in a gathering like this, always delight in talking over old experiences; and many interesting stories of hairbreadth escapes and difficult manœuvres accomplished in the flying machine were told. These men did all their hunting in the flying machine, and I gained from them much valuable information concerning the management of the apparatus.

Early next morning we were in the air. The day was windy, and numerous heavy clouds floated by; I found some difficulty with the machine during this day's journey, for the counter currents up and down made it extremely difficult to keep a straight course. But early in the afternoon we rose into an easterly wind and had the satisfaction of travelling towards the Rockies at the tremendous

speed of one hundred and fifty miles an hour. We were very high — about 3,300 feet above the ground, I should say — and the air was very cold. At about five o'clock we crossed the Saskatchawan River and reached the range where we were to camp that night. We dropped nearer the earth, circled round to find a convenient spot; and after crossing one or two valleys, the professor found one to his liking, and we finally landed on a small cliff which jutted out from the side of a mountain. The descent of this cliff was precipitous for about fifty feet, which afforded us a fine tower from which to get under way. Upon landing, the professor guyed the machine firmly to the ground and got out the cooking utensils to prepare dinner.

"I intend to take my rod and see if I can get something out of the stream below us. It looks as if it might hold trout or even salmon. If you wish, you may get some wood and build a camp fire and make the coffee."

The professor then got out his rod and flies and went off through the woods to work his way down into the valley. I took the hatchet and soon had a good wood pile. I then set to work and made a roaring fire on the top of the cliff, some way from the

machines. While the logs were burning themselves to embers, I sauntered off with my glass to view the surrounding country. The scenery was grand and impressive, but rugged and with little vegetation, and I cannot describe exactly the sensations I felt while standing alone on this cliff, hundreds of miles from any habitation; for had I been without my aerodrome, I should have realized my loneliness, I should have felt the weakness of man. But how could I have those thoughts when I knew that the height of these giant cliffs was as nothing to the height to which I could soar? I could not hold these mountains, these works of nature, in awe because of their size; had I not just come from the skies far above them? Surely the works of man are greater by far than any that nature ever made. When in my time poor man had to struggle over rocks, through thickets, and toil wearily for hours to reach the summit of these mountains, the view then to him was magnificent. It filled him with awe and reverence for nature; it strengthened his belief in God. Why was this? Simply because of the toil necessary to attain the end. If we toil earnestly to reach the goal, how much sweeter is the attainment! The more laborious the effort,

the sweeter the final pleasure. But in the twenty-second century this feeling of awe and reverence for nature's works has died out. It does not exist. No difficulty which nature can make is so great that man cannot overcome it. The commonplace is not reverenced; so now these beauties are seen so often and by so many people that they are accepted as a matter of course and are rarely commented upon. The guide, who, during his whole life, has travelled one mountain accepts its beauties, for to him they are part of the everyday conditions of life; it is only those to whom the view is novel who comment, admire, and revere.

The professor came back with half a dozen trout, and soon they were sizzling in the pan. After a hearty meal we built a roaring fire, and, lying on our blankets, lighted our pipes.

"Professor," I said, "in what way does your civilization change the life of women?"

"Well, in the first place, the inventions and improvements in the conveniences and methods of domestic life lighten their work tremendously, and with us no woman is dependent upon a man for support, and, therefore her right of bestowing her love freely is not questioned. Of course you must realize

that these conditions can only exist where the act of birth gives the right of life. In your time this was not so. To be born did not necessarily mean that you would be allowed to live. If you were smart enough you might get on, especially in a new country where population was scanty; but if born in an old country you would have to fight, tooth and nail, for existence. The rights of birth were peculiar in your day. You did not charge the son with the moral sins of the father, but you did charge him with the industrial sins. You could not see that one was as great a wrong as the other."

"Just what do you mean by industrial sins?"

"Why, if the father was lazy or extravagant, that sin was felt by the son, for lazy or extravagant people could not keep much money, and, as a consequence, the child suffered in home environment and from lack of education. Now, in your day no one would deny that a lazy man deserved less than an industrious one; but why, in God's name, should the lazy man's son be made to suffer for the father's fault? You see, your system caused class distinctions to grow wider and wider apart every day, so that in old countries

the child born in the lower classes must remain there, unless by some freak of nature he had sufficient genius to force his way to the front. The early years of a child's life, say from five to twenty, are of such tremendous importance that home environment almost invariably moulds his character in those fifteen years. Now, the ease with which money can be obtained at that period is of vast importance, for the reason that if the father can with little work procure sufficient to clothe and nourish his family, the remaining result of his labor can be spent on education and the satisfaction of the mental appetites; but if to barely live takes all the father's energy, then the children have no sort of bringing up, and if they follow in their father's footsteps, it is not from heredity, but because their early environment has so directed them. The lower classes of society increase very rapidly for the reason that men and women who by their position in life are denied the benefits of an education, and are, therefore, denied the host of intellectual pleasures given to many, have recourse to the pleasures of the animal feelings, which in their class are strongly developed. On the other hand, an intellectual, cultured woman, because she cares less for the physical

and sensual, and more for the mental pleasures, is less prolific than her uncultured sister. The difference in culture was caused by the financial system. In your day it was thought that the dearest money was the very best money, and the reason for that idea was evident. There was a large class of people who existed by lending this money; and as they existed by lending and not working they had leisure, and as they had leisure they had time for culture. They knew, of course, that if any steps were taken whereby a man could procure from the government legal tender money without working for it, they would no longer find borrowers of their money, and, therefore, they could not live by lending, for no one would pay interest. Of course, there were, undoubtedly, many widows and old people who deserved an income without working for it, and, under your system, the only way to get that was to lend a necessity and charge interest. But with us they are given pensions direct from the government."

"Well, what is the difference? With us, we owned stocks and bonds and got interest, and with you, we own the right to a pension. In both cases, we have the privilege of making people work for us."

"Why, there is a vast difference. Any one could own stocks and bonds in your time, no matter whether or not he was young and able to earn his own living; so that a large number of energetic men spent their energies, not in earning, that is, producing, but in spending, and this spending was almost invariably along useless and wasteful channels, forcing labor into industries that catered to the few, but which produced nothing of value to the real worker. With us no one can live by lending, for we take good care that no one has a monopoly of any essential thing. The only people who have the right to live on the rest of us are the aged, who have worked hard in their day and now deserve a happy old age, free from the cares and worries of life. There are two periods in the life of every human being when the simple fact of his existence gives him the right to demand care and kindness from his fellow creatures. These two periods are infancy and old age. But the greatest evil in your time came not from the fact that to own money was to live on interest, but that to own money was to control industry. It was not so great an evil that one man should have a large income and do nothing, as that that man should be able to

control the lives of the thousands of men, and therefore the lives of their families, in his employ, and divert industry into any channel, regardless of whether it produced a permanent or a useless form of wealth. And this state of affairs was based upon the rights of property. Why, do you imagine, did you have periodic panics in your time? Do you suppose it was because the workers had got tired of earning their living? Because they enjoyed starving? No, a thousand times, no! It was because the controllers of the business were afraid of losses to their own pockets. No one can object to a man's making strenuous efforts to avert personal loss; but when these efforts affect the lives of thousands, they must be considered."

"But a personal loss to the capitalist means a loss to the laborer too, for labor cannot work to advantage without capital."

"Very true; but labor can get on most beautifully without the capitalist, although it needs capital. Of course the action of one man does not help things much, and in times of panic the generosity of one man and the confidence of one man can do but little to stem the torrent; but the error was in having such a system that panics could occur. Such a

system belongs only to savages, and has no place among civilized nations. Your credit system I am speaking of now — a system where the amount of legal tender money is limited, with a result of the expansion of the amount of credit money, entirely under the control of those who own the legal tender money, to meet the demands of trade. This credit money is handled and controlled by the bankers for their own profit, and of course there comes a time when its extension must cease; discounts are stopped, down goes the whole fabric, and the bankers, if any do, get out without loss. As I look back at it now, the whole system seems ridiculously absurd and unjust; but we must understand that its existence had a place in evolution, and that so long as people thought it a just system, just so long were those people entirely unfit to live in a better civilization. The era which we call the Era of Degeneration, and which embraces the eighteenth, nineteenth, and twentieth centuries, was of tremendous value on account of the material progress made. The number of profit-making, generally called labor-saving, inventions in your time was enormous, the progress in the arts and sciences was wonderful, and it is of course not to be won-

dered at that your social progress could not keep abreast of the material progress. This material progress meant great riches, but it did not mean happiness. The reverse was true, for unequal distribution always produces unhappiness, as it starts the next generation with wider and wider distinctions as regards heredity, and especially as regards that environment which is necessary to produce a good citizen."

"I see, professor; you state these problems very clearly. I realize, as you do, the great effect our financial system had upon the younger generation. Why, even in my time people began to realize that every day it was growing harder and harder to earn an honest living."

"Yes, that fact was the cause of the discontent, the strikes, and all the labor troubles; it led to the formation of socialistic, nihilistic, and labor organizations all over the world. See how beautifully this whole scheme works into the evolution of the race. This divine right of property so called, whereby man could own land and capital, acted as a tremendous spur upon the race. It gave men leisure, for they lived by lending; it held out the hope of leisure to all men, for all could hope

to own. You see, in this it is a step ahead of the divine right of kings. This divine right of property was bound to exist up to a certain time, namely, to such a time when social conditions in every part of the world were approximately alike; when there were no more unexplored portions of the globe; when emigration to new countries had decreased simply because there were no new countries where the laborer's lot was any better; then the poor man was brought to bay. So long as he could have a chance of owning land or capital by going to a new country he supported the system; but there came a time when there was no place to go to, and then he faced the music.

"The flying machine was a tremendous aid to discovery and travel, so that early in the twentieth century the whole globe was accurately known. I tell you, my friend, the man who does not see the part that material progress plays in social progress does not have any conception of the meaning of things."

It was now getting late, and fixing the fire for the night, we both turned in.

CHAPTER XVII.

CONTAINS A DISCUSSION ON REPUDIATION WHICH MAY REPAY THE READER OF IT.

The next morning I was up bright and early to get the sunrise, and a beautiful sight it was. In the valleys the heavy mist was hanging low; a few clouds were hurrying westward with the tidings of the coming dawn. Royal heralds they were, proclaiming the coming of the king.

Upon the horizon appeared a light; gradually right and left it spread, giving a pale glow to all the heavens. A gentle breeze sprang up, rustling the trees, waking the birds and bringing forth their joyful song, and then a beam of light suddenly shot forth high in the heavens, tinging all the clouds a rosy color, which, falling on the earth wet with dew, was reflected to the eye by myriads of diamond dewdrops on every leaf. To the right another beam and still a third appeared; and then, with a burst of splendor, the glorious

orb itself rose majestically to its throne in the heavens.

As I walked back to the camp I found my friend fixing the fire and preparing breakfast, and after we had taken a refreshing bath in the clear, cold water of a little brook back of the camp, we sat down to table with appetites which made us very willing to overlook any faults in the cooking.

"What is the program after breakfast, professor?"

"Oh, I do not know; suppose we try to see if we can do some soaring. It will be great sport; and if the wind increases I think we shall have no trouble, for, you see, these mountains will give us plenty of upward currents."

"Are those necessary, professor?"

"Yes. In an absolutely horizontal wind I do not believe we could do anything. What you must try to do is to get over an upward current so that it will not only support you, but will pull you forward. Of course you begin by dropping from this cliff, and when you have sufficient speed, turn into the wind and rise as high as you can, but before you lose your speed entirely, you must turn one way or another and drop across the wind to

regain velocity; but a trial will help you more than all I can tell you."

Just as soon as breakfast was finished we went to our machines and prepared them for flight, leaving every unnecessary article behind and making everything trim and snug, in order to present as little resistance to the wind as possible. The professor, who started first, took a quick run, disappeared over the cliff, and a minute later I saw him shooting across the valley to get in a position to use the upward current which was rising over a high precipice on the other side, and I watched him for several minutes making some very interesting manœuvres, until suddenly, to my great astonishment, he remained absolutely still in the air at a height of perhaps thirty feet above a ridge, and, save for a slight rocking motion, no movement was perceptible. This excited my curiosity so much that I hurried to investigate, and getting into my machine, took a short run and launched myself over the cliff. My motor was still on the drome, and as I wanted to get to the professor while he was still miraculously suspended in mid-air, I set it at work as soon as I had attained a horizontal course and reached the ridge in a very few minutes, to find the professor

still quietly resting on nothing. As I went over the ridge the cause of all this was made plain to me, for I was suddenly lifted vertically about fifty feet.

"Turn around, come down lower, and stop your motor! I think you can manage it all right."

Try as I could, however, I was not skillful enough to stay in one place, and after several attempts, in one of which I came very near striking the cliff, I gave it up, darted off down the valley, then circled, and turning on the electricity, mounted high in the heavens and spent all the morning in the air, enjoying every moment and feeling glad that I was alive. The temperature was low, but I was dressed for it, and the beautiful view, the stillness, the delightful motion, and the gentle rush of the wind past the wires gave me a sense of pleasure and rest greater than anything I had before experienced, so that although I had to come down to dinner, I was in the air again and spent all the afternoon until sunset flying over beautiful valleys, rugged mountains, and swollen, rushing rivers.

Indeed, most of our time in camp was spent above the earth; either we soared for pleasure or we hunted for food, and during our two

weeks of camping we were in the air every day.

After our work was done, one night, and we were lounging around a glorious fire with our pipes lighted, I began to discuss with the professor the money question as it had appeared to me during my former life on earth, and happened to bring up the idea of repudiation.

"Repudiation!" said the professor, "what a lot of talk there was about it during the fight for silver just before the close of the nineteenth century. The word was used by the gold men as an epithet. National honor was at stake, the gold men said, and the wholesale repudiation of debts, such as they claimed free silver meant, would bring the nation into disgrace. Let us see just what repudiation means. Let us suppose that I owe you $1,000, and that when the debt is due I cannot pay. You force me into bankruptcy, and a settlement is made at fifty cents on the dollar. That is called a failure and means perhaps the loss of a livelihood to me. Now if, just before I fail and when I can perhaps pay more than fifty cents on the dollar, I can bring force to bear so that my creditor shall have to be satisfied

with the fifty cents, I can then keep on with the business and not be forced to assign. Now it is here that the free coinage of silver comes upon the scene. If by any means the amount of money in circulation should be doubled, the dollar will be easier to get, and therefore, other things being equal, will purchase less, so that if I pay my creditor in these dollars, legally the debt will be paid; but in this case the creditor will claim repudiation, since each dollar will not purchase what it did before the increase came, and this is true whether the increase is in gold or silver. Now the creditor forgets that this dollar will still pay his own debts, although he cannot buy as much with it; that is, supposing he owes $1,000 to some one, he can cancel his debt legally with the same dollars he receives from me, so that on that score he is no loser; but if he is a creditor to a great extent and his credits are large compared to his debits, he loses because, although he pays what debts he has with the money he received from me, he finds the purchasing power of his surplus funds cut down, and he therefore cries repudiation. Now this class is in numbers very small, and the value of their services to the community is still smaller. They are not pro-

ducers, they are not even aids to the distribution of wealth; they are but extravagant consumers, and their existence as a class is a hindrance to the progress of mankind."

"Are you not rather hard upon them, professor?" I said.

"No. One cannot be too hard upon a class living in idle luxury and exerting all its energies in promoting a condition of affairs in which it prospers at the expense of the masses."

"But, surely, all of those who supported the gold standard did not belong to this class."

"No. The majority of the supporters were so either because they were ignorant of the real meaning of the policy, or because, being in the employ of some gold man or in some business which they feared would not live except under a monometallic policy, they had to regard their own income first. Let me explain my reasons for speaking as strongly as I do. A man is valuable to a community only from what he does, what he gives back to the community. Now, if I am a millionaire of your time, I can hire a man to look after my estate, and in return for the income on my capital I need not give to the community one

minute of my time. In this case I would be worse than useless to the community, for, while giving nothing, I would be receiving much."

"You forget, professor, you are giving your capital which benefits others, without which industry could not proceed."

"You are here admitting my point, which is that capital, and not the capitalist, is the necessary thing."

"But, professor, how can there be capital without the capitalist?"

"Now we are in deep water, and if we do not look out we will have to swim. Supposing there is a business having $10,000,000 capital — that is, a business having a plant and other assets which could not be duplicated short of that figure — and suppose that plant is owned by forty million stockholders, each owning twenty-five cents' worth of the stock and no more, would you then call these stockholders capitalists? If there were only these forty millions of people in the country, could any one of them lay claim to the term capitalist?"

"Well, no, we would not call a man owning twenty-five cents' worth of stock a capitalist."

"Of course not, but whom would you call a capitalist?"

"Well, a capitalist is one who controls a large amount of capital; he is very much wealthier than his neighbors."

"Exactly. There could be no such thing as a capitalist if there were no such thing as a poor man, could there?"

"Well, no, I guess that is right."

"Then the term capitalist is not necessarily connected with the term capital, is it?"

"That is hard for me to understand in spite of your explanation, for it seems to me that the owner of capital must always be a capitalist."

"But how about the owner of twenty-five cents' worth of stock in the midst of the other forty million owners, is he a capitalist? Are they all capitalists?"

"No, we should not consider them so, although perhaps, speaking literally, they were so."

"Perhaps; but in your day the term was restricted to mean the very few who owned and controlled the world's capital, so it is in this sense that I use the term; and I wish to impress upon you the fact that the capitalist, in this sense, was not at all necessary,

although his capital was. If all the wealth in your country had been equally divided, not a cent's worth of capital would have disappeared, but would there have been any capitalists? A man may be worth a dollar or a million, but the amount of capital he owns does not give him the name of capitalist, since, if he owned a million and everybody else in the country owned as much he could not control any more capital than his neighbor, and therefore he would not be considered a capitalist. That name only appears when a difference of wealth appears, and lasts only as long as that difference lasts. I have explained this at some length, in order to show you that capital may exist without capitalists.

"Now, when I say capitalists are not necessary, I mean that in the evolution of society there comes a time when people, understanding these things more fully, see the absurdities of the capitalistic system, and having clearly before them a better and juster system, bring about the change; but until the mass of people do realize this, capitalists are necessary and will exist. The death of the power of the priest in the affairs of this world, the overthrow of the one-man power in the gov-

ernment of nations, and the downfall of the domination of the capitalist are three great steps taken by mankind which mark distinctly three epochs in the advance of human knowledge.

"In your time the progress in science and art, the increase of knowledge in every direction, even along the line of political economy, which in the nineteenth century was the most undeveloped, yet the greatest of all sciences — this progress was, I say, gradually bringing the human race to the stage in evolution when the monstrous capitalistic system was seen in its true guise; and then, the leaders appearing, the stand was taken, the fight made and won, and humanity passed on over the bodies of the dead, sadder and wiser than it was, and ushered in a system in which equality of opportunity and the freedom of the individual had a greater and grander meaning than ever before in the history of the human race. The last part of the nineteenth century will give you plenty of examples of this growth. Take, for instance, the growth of the power of the socialists in Germany and France, of the populists in America; and consider the spread of the single-tax idea. All these things show what

was going on; and when the next century dawned and the Money Republic was born the growth was very fast, too fast indeed, since it is evident from the blood shed during the change and the Chaotic Era, that there were very many not ready for, and therefore opposed to, this progress. Looking at it from the standpoint of to-day, we can understand easily why the capitalistic system existed. We know that had the wealth been equally divided it would have been again concentrated, for with the ideas which were common at that time this was bound to happen. That system fitted that age, and any other system could not exist. The capitalist had it in his power to do the world a great deal of good by hastening the advance along the right lines; but, like every class to which power has been delegated, he abused it and sought to keep things as they were, that he might profit thereby.

"As Charles the Fifth and his son Philip forced the inquisition upon Spain, with the view of keeping all the sheep in the fold where they could be easily shorn, so the nineteenth-century capitalist, as typified in the great bankers, forced upon the world the gold standard, that all who trade must first pay

them tribute. Verily was it a 'crucifixion of mankind upon a cross of gold.'"

It was late that night when we turned in, and as we were going to start for home early the next morning, I lost no time in getting to sleep.

CHAPTER XVIII.

CONTAINS MUCH RAPID TRANSIT AND SOME ECONOMICS.

We landed, after a trip of six hours, in the heart of Salt Lake City, and from here the professor said he would make the trip east in the cars. Our dromes were boxed and shipped, and we put up at a first-class hotel for the few days we were in the city.

I call it city because it is called city on the maps, but to me there is nothing here to suggest the city as I knew it. In my time that term was associated with narrow, crooked streets congested with traffic; high buildings, crowded sidewalks, foul air, dark and dingy offices, immense department stores crowded with clerks, their aisles packed with buyers; immense warehouses stocked with the products of home and foreign lands; and last of all, when I spoke of a city I meant a gathering of hundreds of thousands of men, women, and children, of all ages, of all degrees of intelligence, on a small tract of ground, on which

they fought in direct competition with each other, and on which they erected churches where was taught a doctrine which, during six sevenths of the whole year, was totally disregarded. And I had once believed these people civilized!

Salt Lake City is a beautiful place, but not differing much from many of your modern cities so I shall not describe it.

The professor and I started east on the morning of October 10, and as this was my first ride on a railroad it interested me greatly. The engine was very much smaller than the engine of my time, and consisted simply of an electric generator of about 2,000 horse power, mounted on a four-wheeled truck. The power was carried to each car by wires which where coupled in much the same manner as the air-brakes were, and there was a motor on each truck. In this way great speed and great control over the train were obtained, so that we ordinarily travelled at the rate of eighty miles an hour; but I must say, however, that the roadbed is much improved and must be a large factor in reaching this speed.

"You must see now," said the professor, "the gain we have made over your time. Our progress in the applied arts has been as

great as yours was in the nineteenth century, while in the sciences, especially that of economy, we have done everything where you had done nothing. The majority of your works upon economy were trash — simply trash, and nothing more. Why, out of all the books written on this subject I do not believe you will find any two which give the same definition of wealth; and what must you think then of a science in which the chief factor is not known? Can you call the economics of your time a science, when one writer says this is wealth, another that is wealth; when one says an evidence of debt is wealth, while another denies it; when one says money is wealth, and another that it only represents wealth, and so on? Can you truthfully say that in the year nineteen hundred there was a science of economics? No, you cannot!

"At that time economics was as far from being a science as the alchemy of the Egyptians, hundreds of years before Christ, was from being the science of chemistry. You had no science of economy, nor could have, for you knew not the first principles of the science. You did not know what wealth was, you did not understand the method of building the science of economy; you were working

as the alchemists did, yes, as those ignorant people worked.

"They assumed gold to be the only element, and considered what we now know as elements to be compounds, and their endeavor to turn everything into gold was the active principle of their work. Good has come from their labor, but no science could ever result from it as long as they held that assumption, for it is false. Now the economists of your time had an assumption. It was that the science of economics is based upon moral right; and, clinging to this idea, they wrote volume after volume of the silliest trash, trying to prove that this or that was right or just, and attacked furiously all those who had different ideas of right. One might as well expect a science of astronomy made up of opinions as to what the different laws should be, based upon ideas of right, as to expect a science of economics based upon Tom, Dick, or Harry's idea of justice.

"My dear friend, do not delude yourself. There was no science of economics in your day. You had a great quantity of men, on one side, who were paid to teach the justice of existing conditions, while, on the other side, there were those who taught the injustice of

existing conditions, and in no way could these two sets meet to discuss without fighting. How could you expect anything else when the question of right came in? That is the assumption that prevented you from having a science of political economy; the assumption that moral right entered the case. You cannot take up any of the old volumes which treat of this subject without finding this idea of right constantly before you, especially in that part of the work concerning the division of wealth. The orthodox economist would divide wealth into three parts: rent, interest, and wages, and consider that this division was just; but the single taxer came along and said, 'No, this is unjust.' He divided wealth into two parts: interest and wages; rent, or economic rent, as it is called, he gave to the State. Still a third man would say, This is wrong. Wealth must go only to those who labor in the present, and no matter what the laborer saves, he is entitled to no idleness except such as may come by the spending of his capital; interest was not just, they said.

"If you were rich you were orthodox, if in the middle class you might be a single taxer, while if you were very poor you were often ready to join the third man. With this con-

dition of affairs, do you imagine you could have a science of political economy? Certainly not! You had none until you excluded the idea of justice and right."

"With what, then, does the science deal?" I said.

"Simply with the production of wealth, and that alone. No idea of right or justice can enter for a moment as the aim of this science any more than it can be considered in the other sciences. Science can never deal with sentiment.

"In your time it was good political economy to allow the noblemen (so called) of Ireland to starve out their tenants, because your political economy, being based on right, stated distinctly that the landowner by rights should have the first division of wealth, and that it was right for him to ask as much as he could for the use of his land; yet, in spite of this fact, your people often looked in horror at conditions this state of affairs brought about, although your economy taught the justice of them, and looked in horror because they realized that the condition, while being just to the landowner — according to their economy — was unjust to the tenant — according to their feelings — and thus they were at sea. Poor

fools, they thought they had a science of political economy!

"Now, with us, conditions such as existed in Ireland in the nineteenth century could not exist; and this is not because we have pity for the tenant, not at all. We do not go on the basis of justice, but our economy teaches us that that distribution of wealth which will cause the most wealth to be produced is the proper one, and any one can see that if a man is turned out of house and home the chances are against his being a producer; that is enough, he stays. There is not one atom of sentiment in our economy; the word justice does not enter any more than it does in our astronomy. As producers we are machines, bodies, working in close proximity to each other and subject to certain laws; and our economy teaches us these laws which govern our actions, so that from it we are able to judge of the best methods of producing wealth. Thus eliminating the question of right, we get a science which is understood by all.

"If it could be shown that to kill some people would tend to increase the production of wealth, that would be considered good economy by us, although in your time it would

be thought bad economy. Mind you, economy has nothing to do with happiness; and the moment you let ideas of happiness enter into this science you ruin it, for every man has his own idea of happiness, and no two ideas are alike. Moreover, one man cannot prove he is any happier than another; but a man can prove that one scheme of distribution produces more wealth than another. That can be demonstrated by fact; that lies beyond personal feelings; that can be shown to be based upon nature's laws, forever unchangeable; whereas ideas of right and justice are constantly changing from age to age. Therefore it is that the science of political economy treats simply of the production of wealth, with a view of showing the greatest possible production thereof; and therefore it is that the distribution of wealth is treated only as a factor in the production of wealth, albeit the greatest one. The first law of economy has been found inductively, although it has been proved by the deductive method also. It is, as I have told you before, 'Stability of government is necessary for the greatest production of wealth,'—and by government we mean the ideas which govern a people, not the men who govern.

"This law teaches us that so long as these ideas are varied and unsettled, so long will the production of wealth be interfered with, which indeed was understood even in your uncivilized times, for an unsettled condition of ideas produced a lack of confidence in trade and brought business to a standstill.

"With regard to the other three laws I have told you something already, and will perhaps go further in the future; but I would say here that the first law is the most important one, and is the one which every great statesman must know. Disregarding his views as to the other three laws, to be great, he must at least understand the first one; but the philosopher, in whose field political economy lies, must know and appreciate all four laws. It lies with the philosopher to tell what steps to take, and with the statesman when to take them. Neither can encroach on the other's territory. The philosopher must teach all four laws, the statesman must enforce the first one; the one deals with the abstract, the other with the concrete; the one looks into the future, the other must see but the present; the one need know nothing of present conditions, the other must know everything. The philosopher teaches the

people, and the statesman, when the time is ripe, promotes them. The two must work together, and in any country where one is missing the fact is evident."

"I presume, then," I said to the professor, "that the America of my time had no philosophers."

"True, nor any statesmen either. You had nothing but politicians. '*L'état c'est moi*' — that is, the politician, and that is all you had in your country. It was always a case of legislating for one's own pocket, and no greater proof that this was the fact can be found, nor is there need of a greater one, than the absurd civil-service system existing in your day. The very fact that civil-service reform made no progress was a proof that politicians, not statesmen, were in power."

As a digression from this topic, the professor led me to the end of the train, to a platform enclosed in glass, from which we could view the surrounding country. We were passing through farming districts, and this brought the professor to the discussion of a point which, in my own time, had interested me greatly. I had often reflected upon the fact that, of all industries, farming had changed not at all in its methods. That is to say,

while every other industry had gained by the increased specialization of labor, farming alone had remained unchanged. With the exception of the introduction of a few new and improved tools, the farm of my day was identical with the farm of my grandfather's time. I mentioned this to the professor, and he explained it thus.

He said that farming as a business required the use of large and unoccupied tracts of land capable of production; this, of course, necessitated that farming districts must be thinly populated, or to put it another way, that districts thickly populated would be unsuited to farming. Since the farm produced wealth which could be consumed immediately by the farmer, active and close trading was not necessary to existence. Also, with crude methods of communication, improvements originating in cities were slow in reaching the farms, so the first of these causes worked against the need of improvements, while the second prevented, to a great extent, their introduction, and therefore progress was slow.

"With us," said the professor, "increase of knowledge has led to improved methods, while increase in the facilities of communication has caused the increased adoption of these meth-

ods. As Herbert Spencer has well said, progress is but the change from 'an indefinite incoherent homogeneity to a definite coherent heterogeneity,' and the farmers were the last to feel this progress. But now they have felt it. The immediate cause of this is the need of increased wealth, but the main cause of it is the force deep down below all this, which is as unchangeable as gravitation and which explains all social progress, so well defined by Herbert Spencer. This force has always acted, will always act; and its tendency is to so alter and improve the social community that the greatest amount of wealth possible may be produced. This is one of the primary forces which we study. It is called the law of progress, and is the basis of all political economy, with which happiness or justice have no more to do than they have to do with the law of gravitation. It is perfectly conceivable that men may be as happy in a state of civilization wherein little wealth is produced as in one wherein great wealth is produced; for happiness depends in great measure on contentment, and contentment is dependent largely on personal ambition; so that so far from happiness being the groundwork of political economy, in itself it militates against the

growth of political economy and against progress. Progress means change, and if all were happy there would be no change. Witness the Chinese Empire from very early times, in which religion and custom, with the help of nature, fastened upon the people a mode of life and thought which stifled ambition and gave birth to contentment and happiness.

"In this nation for many centuries there was no change; and, considering the natural resources and population, but little wealth was produced. Now, if to provide happiness is the aim of political economy, why did not your economists study China — its system of government, its methods of trading, its policy of exclusion, its religion which stifled all ambition, and thus tended to produce happiness? All of these things tended to promote happiness; and so far as we know, China never suffered from such great internal revolutions as convulsed Europe, and therefore its people must have been happier. But your writers considered China a dead nation, from which nothing could be learned in this line, and so they showed their inconsistency. There can be no greater fallacy in the world than to connect happiness with the aim of political economy."

"Do you mean to tell me, professor, that although you have solved the social questions that puzzled us, you have not reached a state of happiness?"

"Yes, nor can a nation ever reach that state unless all personal ambition dies. True it is that the evils which we have are not the evils which existed in your day, but with the new generation come new ambitions, new ideals; and as these must necessarily, in a great many cases, be unsatisfied, many are unhappy.

"This is the reason why your economists were in the dark. They declared eternal happiness to be the aim of political economy, and that any economy which did not procure this was false; but great philosophers, recognizing the truth of the theory of evolution, stated boldly that such a condition of universal happiness could not exist, from the very nature of the conditions; for with the increase of knowledge comes the increase of aspiration, and this growth will never die until the human race becomes extinct. Many men, recognizing the fact that there would always be some to grumble, — grumblers, by the way, are the salvation of the race, the cause of all progress, — have been opposed to social change,

since leaders of that change claimed happiness would follow, while their opponents knew the contrary. But if economists had come forward, attacked the problem from an impersonal standpoint, as every scientific problem should be attacked, and said, 'This change will increase the total wealth,' then the result would have been different. They, however, contented themselves with crying out about justice and happiness, so that of all the books written on this subject there was not one generally accepted.

"The economy of your day was in a state similar to astronomy at the time of Galileo. The astronomy then taught was based, not upon facts gathered from the heavenly bodies themselves, but upon ideas which had their origin in the teachings of religious fanatics. A system of astronomy was believed, not because it conformed to facts, but because it agreed with accepted religious ideas. That was in Galileo's time; and because he dared to raise astronomy to the rank of a science by examining and discussing facts and not opinions, he was persecuted. Now your economics were in a similar plight. Every writer who discussed the distribution of wealth in your day based his conclusions upon opinions

as to what was a just distribution, and not upon facts as to which distribution would cause the most wealth to be produced; and when, finally, an able man came forward and, by eliminating all opinions as to justice or happiness, attacked the problem from an impersonal standpoint, he raised it to a science as Galileo had done with astronomy, and his reward was — persecution. Are you not proud of your countrymen? Do you at the present time fail to see that they were but very little ahead of the people they spoke of as barbarians? Truly you were an ignorant people, and did not know it."

CHAPTER XIX.

IN WHICH I AM INTRODUCED TO MANY MORE MARVELLOUS INVENTIONS.

From the rear platform of the car where we were I had a chance to watch the shining rails as they fell away from us. Every second as I stood there one hundred and twenty feet of track flew by under me, for we were going over eighty miles an hour, and this without any jar or vibration. In turning curves I noticed a V-shaped rail in the centre of the track, about a foot high, which engaged wheels in the truck and prevented the light train from leaving the track while turning curves at high speeds. This train was very much lighter than the trains of my day, and the professor said it was made so that it might be started or stopped quickly, which of course played an important part in rapid suburban traffic.

From the rear we went forward and, with the guard's permission, went into the engine room. The engine was much like a very

small caboose, and could be entered from the platform of the first car; it had windows on all sides, and the front was built out into a nose, lessening the resistance of the air, which at the speed we were going was nearly twenty-five pounds per square foot. Taking into account the size of the train, this resistance would have been more than a ton if not reduced by the shape of the nose and train, which was of course vestibuled. In the engine room stands the little upright generator, which burns naphtha, vaporized in a heater, and twenty-five hundred horse power is distributed to fourteen motors under the different cars. The firing of the boiler is automatic and there is no fireman, one man having entire control. He sits forward, having a full and unobstructed view of the track, and upon either hand are switches, levers, and buttons, with which the engineer controls the train. Besides the connections between the cars for the air-brakes and the electric current, there is a telephone which connects with every car, and various dials by which the engineer knows the power consumed by every motor, the pressure of air in every brake, the temperature of every bearing. But the engineer knows more.

By the aid of a small camera and electrical connections he can look at every truck under the train to see that everything is in a sound condition. He can do this at night even, since he has only to press a button and every truck is lighted by lamps under the floor of the car. This machine is wonderful in itself and very interesting to me, for in my time the instantaneous transmission of pictures over a wire was being experimented with as one of the possibilities. Here I saw it perfected. I put my eye to a small hole in a box, the engineer turned a switch, and presto! I was under the train, and there was the truck with its buzzing motor, its whirling wheels, and its swinging brake beams. It is wonderful, and the engineer told me that this little machine had saved many a bad accident, which I do not doubt in the least.

I had, during my trip, noticed an absence of those tall poles that one saw at the side of every railway in my day; I refer to the block signals, not to the telegraph poles, but by this road there were no poles whatever. Telegraphing without wires was possible, I knew; but I did not see how it was possible to do this from a moving train, so that only a train on the same track would receive the

message. The engineer, however, soon explained it. It seems that two brushes touched the rails, one on either side of the cab, and that these brushes were so connected that, whenever it was possible, a current of electricity from one brush would run along the rail, cross to the other, and come back to the cab. Whenever the circuit was thus closed, a signal was made in the cab by a bell. The rails, however, were insulated from each other, and there was no way for the current to pass from rail to rail unless there was another train on the track.

This is certainly an infallible block system, and by increasing the strength of the current the length of the block of safety may be increased. In this system it is impossible for one train to approach another on the same track to within one mile without each engineer being aware of the fact. This certainly is ingenious and simple, and I wondered why the inventors of my time had not thought of it.

As we were standing in the cab and I was looking at the simple little boiler, a bell rang out loudly. It sounded like a telephone bell, and the engineer immediately threw open a switch, when the handle in the small dials moved, showing that the power had been shut

off; then the whistle was sounded. The train was gradually going slower and slower, until the speed dial marked fifteen miles to the hour, when, on rounding a curve, we came upon a freight train standing an eighth of a mile ahead of us. Our train was stopped in its own length, and the professor and I jumped down and went forward with the conductor and a few passengers who had by this time come up, to find out the trouble.

The freight, it seems, had broken in two on the top of a grade, and as the train came down, the rear had smashed into the front portion, damaging the trucks so much that it required two hours to get them in condition again. This accident attracted a large crowd, and I saw many men circling round in flying machines, looking interested.

This was the one thing I could hardly get over. To see the air filled with men was always a strange sight, and I was more interested in watching them than in the repairing of the truck. After we had been kept waiting forty minutes — the freight had been stalled an hour before we came up — the two trains started, and ours followed the freight a mile and a half, when it turned into a siding and let us pass. We were now over forty minutes late,

and we simply flew over the rails to make up time. I remember that on one straight stretch of about five miles the speed dial registered one hundred and sixty-five miles an hour. It made me rather nervous to stand in the cab and look ahead at the rails, which the engine seemed to swallow at the rate of two hundred and forty feet a second, so we returned to our seats in the coach.

We arrived at Denver ten minutes behind time and only waited there for an hour and a half, which time we employed in taking dinner at one of the hotels. Denver is a beautiful city, but to me it is like all your cities; I suppose because in my time difference in wealth showed itself everywhere, while with you there are none of these differences. The buildings seem to me to be small; but all your buildings are. I do not remember seeing one over three stories high except the towers for flying machines, while in my time eleven and twelve storied buildings were ordinary affairs, and New York boasted of its twenty-seven story structure. I remember it well, for I had been to its top many times and enjoyed the view over the bay. And to think that that mammoth building was destroyed by a mob! What terrible scenes must have

been enacted in that city during the Chaotic Era!

At eight o'clock we left Denver in a sleeping car for Kansas City, a distance on this line of seven hundred and fifty miles, which we were to cover before breakfast the next morning. The sleeper was built much like those of my time, though it was not so heavy, and each compartment was separated from the rest by a wooden partition which was movable. Each berth, or bed, had an electric light for reading, and as there were no upper berths, plenty of head room was secured. The ventilation was artificial and perfect; no windows were opened, the air — coming in from the top of the car, heated or cooled by an electrical apparatus as the season required — was distributed to the berths by fans. At the side of each bed was a small tube shaped like a megaphone, and all these tubes were connected with a phonograph at the end of the car, so that one could listen while a phonograph breathed soft, enchanting music, or one could arrange to be awakened by music at any hour he might wish. I went to sleep that night, listening to a Beethoven symphony; and if I remember correctly, I was awakened by Flotow's "Stradella" overture.

Its lively movement caused me to open my eyes, and it took some time to collect my thoughts and to realize that I was not in my native Boston, listening to the Symphony Orchestra, so beautiful was the performance. When I looked out I was astonished to find that we were in the station at Kansas City. I dressed hurriedly and went out on the platform, where I found the professor, who had been up some time, and we went to the restaurant for breakfast. We staid here but a short time, and then hurried on to St. Louis, which we reached at half past ten in the morning. Here we remained two days, that I might see one or two of the art galleries and some fine public buildings, and soon we were on our way to Chicago. This was to be our last stop in the West, and we were then to make the rest of the trip to New York in our aerodromes, which had been sent ahead of us.

We arrived in the city at eight o'clock in the evening and took an electric cab to the Hotel St. James, which is but three stories high, but occupies over an acre of ground. Here we were given rooms on the second floor, and in spite of the comforts of travelling in modern trains, I was so tired that I

was glad to go to bed early. The same phonographic arrangement was used in the hotel as on the train, and after turning the switch I got into bed and almost immediately went to sleep. Now, unless set to stop at a certain time, the phonograph will go on forever; and as I was too sleepy to stop it, it played its whole repertory and then began over again, until an exceptionally loud passage from one of Berlioz's symphonies, which I think is scored for a battery of cannon as well as for a full orchestra, woke me with a start, and I jumped for the switch. But I suppose I was charged in my bill for the five hours of music which I did not hear.

The next morning we took breakfast in the large dining room, which is finished in white with fine tracings of gold in scroll work and flowers on the ceiling and walls. Most of the tables are set endwise against the walls, which are covered with mirrors beautifully framed. The ceiling is supported by eight massive pillars decorated in the same manner as the walls, and the whole is flooded with light at night by an electric current which plays in tubes of tinted glass. These tubes hang from the ceiling and take the form of a creeping vine, and here and there are clus-

ters representing buds and flowers; the pillars are surrounded by vines, which start from their bases and grow upwards, radiating in all directions to meet the tubes on the ceiling. By varying the intensity of the current, the color of the lights is changed, and the different tints of the tubes increase the effect, making them appear like a living vine budding overhead and on every side with beautiful flowers.

As we entered, a waiter conducted us to an unoccupied table near a pillar, and stood with a tablet awaiting our order. This he wrote on a slip of paper, and opening a little door in the pillar, he placed the paper inside on a slab. The professor explained to me that that was an electric camera, and that as soon as the paper was placed on the slab a bell rang below, and a servant, looking into the machine, read our order. This camera was the same sort of a machine that was used on the train to enable the engineer to see the trucks when the cars were moving. The orders were quickly filled and sent from the kitchen up to the dining room on a dumb waiter within the massive pillar, so that the service was quicker than any I had been used to in the great hotels of my day.

During our meal the professor called my attention to a gentleman at another table, saying: "That is Professor Sedgwick, the great biologist. The result of his study possibly has done more for the good of humanity than any other one thing; for it is he who first perfected the cure of consumption. In experimenting with etheric waves and their effect on microbes, he discovered a wave which is fatal to the tuberculosis germ, and after a long course of study and experiment, covering twenty years of hard work, he has perfected the process so that it is now used universally as a cure for that disease.

"The patient is subjected to the rays from his instrument for short periods of time until all the germs, in whatever part of the body, are killed; but these rays, being detrimental to the cellular tissues, have to be handled with great care, and the patient often has to undergo another treatment to overcome those bad effects. The operation is successful, however, and the patient is always safe until the germ, which is present in food and even in the air, affects another lodgment, when the operation must be repeated.

"We know now that this disease is not transmitted by heredity proper, although the germ

may find lodgment in the young during pregnancy; but we find that the proper use of this cure has decreased the number of cases so much, and the race is so free from the disease, that even those tendencies to consumption, such as narrow chests and poor blood, which existed to such a large extent in your day, are no longer present, and the disease has, in fact, lost all its terrors."

I could only express my admiration for this great discovery and say, "Your generation has everything to make it happy, professor."

"I do not know about that. The modern generation, never having seen the disease, cannot, of course, realize what it has gained by the cure, and so it naturally does not feel the gratitude which that generation in whose life the cure was effected felt. The modern generation accepts its own conditions as a matter of course, and has still higher ideals which, in the majority of cases being unsatisfied, lead to unhappiness. It must be ever thus unless we find that there is a limit to ambition, which, by the way, is considered by our greatest philosophers as inconceivable, so that a state of eternal happiness can never exist."

"Which reminds me, professor, of a point in economy about which I wanted to ask you.

If happiness is not the aim of political economy, what part, if any, does it play in that science?"

"It is one of the factors which affect the first law. The stability of any form of government, or the stability of any idea, depends in a very large measure upon the happiness of the people living under that government or holding to that idea. If a large portion of the population of any country are not happy under a system the stability of that system will be threatened, and therefore it must be changed, or the people must be kept in subjection by force. This was recognized in your day, and there were examples of both methods of regaining stability, as in England and Russia.

"Now when, as in England, laws were changed to suit the majority, it was done not to bring happiness, but to bring about that stable condition of affairs in which alone great wealth could be produced; on the other hand, in Russia force was used to prevent the spread of ideas which, causing unhappiness or discontent with existing conditions, would have led to instability and thus diminished the production of wealth. The difference between these two methods was that while in England

change followed change, and stability was obtained, there was also a great progress towards the fulfillment of the other three laws governing the production of wealth, and therefore great wealth was produced. On the other hand, in Russia the method of force, while it produced stability, prevented progress in any other direction, since force could not be used unless there were governmental interference, large monopolies, and great inequality in the distribution of wealth; therefore the first law was satisfied at the expense of the other three, so that Russia was poor in everything except natural resources. The extreme folly of this course was made plainly evident when the great struggle between England and Russia took place in Asia. The Russian, because of this condition, was four centuries behind the times, and the downfall of the Russian Empire came soon after this struggle. You see that it is the nation which produces the most wealth from the labor of its own people that must win in the long run, and that nation was England; this is so because the people of such a nation are always more intelligent, more energetic, and understand the laws of nature better than any other peoples.

"For an example. Let us suppose you

and I are cast away on two islands — one very productive, upon which I am placed, and one barren, which you occupy. Now all I have to do to get a living is to pluck the fruit near at hand, or shoot the game, or catch the fish with which the rivers teem, while you are put to your wit's end to live. In considering the islands, mine produces more than yours, but it is absurd to say that I produce more than you do. Everything is produced for me ; you have to produce everything, and the effect on us is to make me indolent and luxurious, to make you intelligent and energetic, so that in course of time you will come over and drive me off my island. It is thus with nations. Up to a certain limit, the harder the struggle the sharper grows the intellect ; but beyond that limit, if nature is too strong, man must succumb. This is why the peoples of the temperate zone have attained the highest state of civilization, for the struggle against nature has urged them forward, while nature was not powerful enough to inspire them with awe and thus check their progress. Of all the feelings which man has ever cherished, those of reverence and awe have stopped his progress more than any others.

" Your writers, in speaking of wealth, would

often confound wealth of natural resources with wealth of productive labor, when there can be nothing more absurd than to do this in speaking of national wealth. The natural wealth of a country — that is, its natural resources — is no criterion of that country's condition; for those resources are entirely independent of race, creed, or form of government, which latter can only be determined by the productive wealth of the nation, for this depends upon the degree with which the system conforms to the four laws governing the production of wealth. Thus the Spain of your day, although full of natural resources, was, economically speaking, poor for the same reason that Russia was, although in Spain a priesthood and not military force was the cause."

The professor stopped speaking at this point, and having finished our breakfast, we left the hotel to see the city.

CHAPTER XX.

THE LAST STAND OF THE EIGHTEENTH REGULAR INFANTRY OF THE AMERICAN EMPIRE.

"Professor," I said, as we strolled down the avenue, "it seems to me, as I begin to understand your system of economy, that in order that the first law may be obeyed there must exist often conditions which are contrary to the other laws, and that, as civilization progresses and men gain in knowledge, that gain will be shown by such a change in social conditions that the system, while still satisfying the first law, will satisfy also the other three laws."

"Very true, and any change, to be beneficial, must come from an increase of knowledge among the masses, since without this any change is apt to violate the first law. Thus if a people believe thoroughly in a protective tariff it would be folly to force them into free trade, as it would tend to make business unstable, since a large body of men would always be clamoring for protection; and this

is so in spite of the fact that free trade as a policy will cause a great increase of wealth. And, therefore, while the philosopher says truthfully that protection prevents the increase of wealth while free trade tends to the reverse, the statesman says as truthfully, So long as people hold that protection is better than free trade, it is better not to give them free trade, for the first law of economy is more important than the second.

"The philosopher must not consider people's opinions, but that is just what the statesman must do; and the only way to bring about free trade is to show the people that it would be better for them than protection, which was done early in the twentieth century."

We took a cab from the St. James and started north up the Lake-Side Drive. I had known the Chicago of my day pretty well, but your Chicago is an entirely new city. I recognized nothing, and few of the old buildings are in existence.

As I looked upon this city and compared it to the one I had known, I began to realize the magnitude of the change the Chaotic Era had brought about; and I was both amazed and puzzled, for I could not understand how it

was possible in a democracy that such injustice should be dealt out as to cause an uprising of the masses; for my contemporaries had always claimed that the right of suffrage was a safety valve, and so long as that was given to every man, battles would be fought with votes and not with muskets. The professor surprised me again by reading my thoughts; he certainly is very expert at this art. "The right of suffrage is a safety valve," said he, continuing in speech the line of thought I had been following for some minutes, "but it did not exist at the time of the Chaotic Era. It had been withdrawn some fifty or seventy-five years previous to that date, and that is the reason why the battle was fought with bullets and not with ballots."

I turned to him in astonishment and could not conceal my amazement at this fact, which was news to me.

"Do you mean to tell me, professor, that the right of suffrage was limited? That the great republic of Washington and Jefferson reached a stage where it threw over its principles of democracy to aid and protect the upper classes?"

"That is just what it did."

"Alas! I weep for my country. That is

the saddest of all news. How did it happen? What was the cause of it?"

"It was the result of the policy of imperialism which followed the Spanish-American war of 1898. At the end of this war the United States found herself with Cuba, Porto Rico, and the Philippines on her hands. These islands contained many millions of uncivilized people, and it was utterly impossible to give them the right of suffrage and have a stable government. I may say here that economic science, in dealing with forms of government as a corollary of the first law, shows us that democracy is not always the best form of government from the economic standpoint. It shows us that democracy is best suited to that nation which is most civilized and which is the most 'definite heterogeneity' of all nations; whereas, for an uncivilized nation, nothing is more conducive to the greatest production of wealth, than to be governed by a representative of a highly civilized nation, provided, of course, that this representative is not corrupt. In this condition the uncivilized peoples may not be as happy as they were, but there will be a tremendous gain in the production of wealth, so that in dealing with two different peoples,

it is often necessary that, to get the same result, *i. e.*, stability, two diametrically opposite methods of government must be used.

"Now from limiting the suffrage in Cuba to limiting it in the United States was but a step, and soon after imperialism had become the policy of your country, a property and educational qualification was put upon the right of suffrage. The immediate results of this were beneficial, and most men of your time could see only immediate results, for a large majority of the Americans of your day did not know enough about the principles of government to use their votes intelligently; but the later results were disastrous, for discontent, not being allowed to show itself at the voting booths, grew silently, and finally attained such proportions that it was satisfied only with blood, and thus was the Chaotic Era brought about."

Going up the avenue, the professor pointed out several spots as the scenes of bloodshed during the early part of the revolution, and he described to me the last stand made by the regulars against the mob. Undoubtedly you are all more familiar with the history of these times than I am, so I will not weary you with a description of them, except perhaps

this last fight, which I will tell in the professor's own words.

"You must know that the uprising, coming so quickly and unexpectedly after Blackburn's speech in the Senate, took the government by surprise, and it soon became evident that the means were not sufficient to handle the case. A large force of regulars was called to Chicago from the West and was reinforced by that part of the state militia which was still loyal to the government, and a large force of flying police was added also. However, before this mixed body could be concentrated in order to do effective work, the mob had grown to tremendous proportions. It gathered force from all ranks in life and was officered by many able men, so it happened that the few thousand regulars accomplished nothing, but were shot down without mercy at every street corner. The flying police were effective until the mob, obtaining flying machines for themselves, met their enemies in the air, where numbers and the passion of uneducated men fighting for a great principle won over trained but disheartened soldiers. Indeed, over a third of the regulars joined the mob when they became aware of the extent and fury of the movement, wishing to be on

the right side of the fence, as it were. At last, after two weeks of fire, pillage, and hard fighting, three companies of regulars composed of about one hundred trained soldiers remained entrenched at this spot, awaiting the pleasure of the mob."

We had stopped the carriage, and the professor was pointing to a place in the street marked with a cross of stone.

"Here these men awaited death behind such protection as the walls of buildings which had fallen from either side afforded, and upon a morning in June they gave up their lives in the endeavor to check the fury of a mob one hundred times more powerful than that which set up the guillotine in Paris years before. It was a tragedy similar to the annihilation of the Swiss Guards in France, in 1792.

"The barricades extended from one side of the street to the other, so that, owing to the condition of the buildings on either side, attack could only be made from the street proper, and here the regulars were well protected. Early on the morning of June 8 the mob appeared, coming from both directions in fair order and under good leadership. It stopped a hundred yards away, and under a flag of truce a man walked forward to parley

with Captain Harding of the regulars. He was offered a position as a leader in the new movement, and his men were offered their lives if they would throw down their arms, but Harding refused. Standing on top of a pile of rough stones, his head hatless, bloody, and bandaged, leaning on his sword and with his revolver in his hand, his uniform torn and mud-bespattered, he still looked the gallant soldier and brave man that he was, and commanded the respect of even the mob which stood ready to crush him. His answer to the spokesman was as follows: 'To your question I answer no; your demands I emphatically refuse; go, return to the beasts you have left, and tell them that I serve my country, not a mob of howling anarchists; tell them that my orders were to do what I could to save my country from ruin, and that in my endeavor to do this I will, if necessary, shed the last drop of my blood. I know your numbers and your power, but I am content to die fighting to preserve the American Empire from destruction. I do not know who you are nor what you are; but I say to you, as the representative of all those elements which are most vile and dangerous to the safety of society, that I, Thomas Harding, Captain of Company H, 18th

Regular Infantry of the American Empire, abhor all that you and your kind stand for. I have nothing further to say, and hope you will now retire, that this little affair may be the sooner over.' Then the leader of the mob making a gesture of withdrawal, Harding said: 'Sir, since next we shall meet as leaders in battle, I salute you,' and making the salute with his sword, he raised an American flag above the stones and disappeared behind the barricade. The charge followed quickly, and soon all was over. Not a regular remained to tell of it.

"This was one of the many heartrending scenes with which that bloody era was full. Harding was partly right. The mob were beasts, because they were the result of the barbarous scheme of finance current at that time, yet great good came from the doings of that same mob; and it must ever be thus. A great revolution always means a change of ideas for the better, and this rarely comes without bloodshed and long periods of fighting, in which man's passion and brutality rise above all else. Some must suffer that many may gain. 'Alas, that life must forever feed its growth on death, and human progress advance only over the ruins of the perfect.'"

As we rolled along the avenue I found myself thinking deeply of this great revolution. I could see the tremendous good it had done in spite of the brutality of the doing; I could appreciate the feelings of the mob; I could even understand Harding's attitude, and I could see how the restriction of suffrage had led up to this state of affairs. But what I could not understand was why these things should be. Why, if there is a kind Providence above us, should such useless bloodshed be allowed?

"Professor," I said, "is there at this time sufficient knowledge of the history of man to explain all of these things to me? I have been taught to believe in a God, one who is wise and just; I have been taught that the universe was created with a definite design; can you help me in these matters? Can you explain to me the reason for all this suffering?"

"Not so long as you hold to the idea of a God. A man holding this idea gets but one consolation, which is, 'After all, how can we judge an infinite power without infinite wisdom? The useless suffering seems terrible to us, but may it not be all for the best? Must we judge when our knowledge is so limited?'

This thought has given consolation to thousands."

"Yes, but does it satisfy you, professor? I must tell you that there are times when it does not satisfy me."

"Now what you want, evidently, is my views on religion, and although I never force my opinions, I am glad of an opportunity of talking with you upon this question since you have introduced it. To me this is no consolation at all. In fact, I am not in need of any consolation. I am not a mental cripple, and do not need a belief in a future life to help me in this one. But to examine the case. You will of course see that there is no argument set forth here; the man simply says that suffering may be for the best, and considers that he has reasoned soundly in suspending judgment until more knowledge is obtained, which is all very well in itself, but the man never thinks that it might be wise to suspend judgment as to whether there is a God to cause this suffering. Believing in a God, he finds many conditions which perplex him, and, being at sea, as it were, he seeks consolation in the supposition of a possibility; that is all it is; but if he did not believe in a God he would not need this consolation."

"But, professor, what is the use of this life if all is to end here? Why should all of these things exist if nothing is to come of it in the future?"

"Things are not made for a future, but from a past. Do you understand me? In any cycle of phenomena the middle term does not exist because there must be a last term, but because there was a first term. We know that there may be a last term if there is a second term, but to say that the middle term was created that there might be a third term — which is the same as saying that the world was created with a certain design — is to ignore the first term. If God created the universe, who or what created God? It is similar to the ancient tradition as to how the world was supported. If for one moment you admit the possibility of something being created out of nothing, then there is no end to the backward reasoning you can follow logically; if you say that matter — or rather the luminiferous ether, for matter is only ether in a condition of motion — was created, then one has a good reason for asking what created that which created matter, and so on backwards, indefinitely. Upon the hypothesis of a Creator there is no evi-

dence in fact for stopping at this point and claiming He always existed. The evidence plainly says ether always existed.

"This ether manifests itself in different ways, and these conditions of ether may be created; that is, a condition distinct in itself may exist to-day and not exist to-morrow, but the ether has always existed, so far as there is any evidence.

"As a conscious being, man is constantly exercising what he terms will-power and producing certain definite results which he calls the results of design, and from this he gets his idea of a design in nature matured in the brain of a God. But in this he is wrong; first, because this apparent use of the will-power is only apparent, and secondly, because there is nothing in nature, outside of nervous organisms considered alone, that does not show the reverse of design, as Darwin proved most conclusively. We understand now the phenomena of nervous organisms, and they present to us the same great truth that 'Things are not made for a future, but from a past,' whereas in your time the ignorance on this subject was vast, and therefore this distinction was drawn between the two classes, to wit, that nervous organisms possessed ex-

traordinary characteristics not common to the other class."

"But, professor, if we are only machines, what is the use of living?"

"Well, between you and me, if you can see no use of living I see no reason why you need live. The trouble with you is that you have become so imbued with ancient beliefs that to eradicate them would deprive you of half of the pleasures of life. Now, it is not so with me. I was not consulted about my birth, but was forced into this world not because of the future necessity of the existence of a man, but because of the past necessity for the gratification of the appetites of my parents. Very good! Here I am placed as the direct result of past actions, and I am given certain appetites, mental and physical, also the direct results of past actions. Now one of these appetites is the appetite to live, which I have to a very great extent; indeed, I enjoy the gratification of that appetite more than any other, and questions relating to a future life would never make me lose that appetite. Now, with you, anything which tends to demolish your ancient beliefs makes you lose your appetite for life, otherwise you would not ask me 'What is the use of living?'

"The majority of people have always suffered from mental dyspepsia, and to tone up the system and preserve the appetite for living, have taken doses of theology in large or small quantities, according to their nature. As for myself, I never had the disease.

"But enough of this. Let me call your attention to this spot." Our motor wagon had stopped at the corner of a street, where there was a library. "Here," said the professor, pointing to the building, "stood an old armory, in which was stored about five hundred million dollars' worth of bonds and stocks at the time mob law was at its height. These papers had been hurriedly placed here at the first outbreak, and were protected by five hundred regular soldiers. The garrison held out until the first of June, and when the armory was taken, the bonds and stocks went up in smoke. Of course you understand that the burning of these bonds did not mean the destruction of the wealth represented by them, but only the destruction of all records of ownership. There were many other strongholds like this which were destroyed earlier and easier; indeed, with flying machines and dynamite bombs, the mob practically had it their own way. Considering the

damage done and the condition of the mob during the Chaotic Era, it is quite astonishing that a nation such as you find now arose from the ruins; but the causes of this are to be found in the fact that for years public opinion had been changing to certain definite ideas, that the best philosophers and statesmen of the Money Republic had influenced public feeling in the right direction, and that before many months of mob law had passed, able and conscientious men stepped forward, and, assuming control, steered the ship of state through the dangerous channels into the calm and sheltered harbor of Equality.

"After a stormy and dangerous voyage of more than four thousand years we lie at rest in safety, and the science of political economy, like a massive and impenetrable wall, protects us from the fury of the sea of ignorance."

CHAPTER XXI.

CONTAINS A LITTLE MATTER TOUCHING TRUSTS.

We spent the forenoon and most of the afternoon in viewing parts of the city; and while the trip was interesting, I found that I missed something in the atmosphere of business — I could hardly tell what. The absence of the poorer districts, which we called "slums," was also very evident to me, and I have hardly got used to it even now. As I viewed the different wholesale and retail stores and saw how the manufacturing and distributing was concentrated even in large districts, and also how this method facilitated trade and therefore aided production, it puzzled me to know how this fact could be reconciled with the third law of economy, which claimed that monopoly, or, in other words, the concentration of business interests, tends to diminish the production of wealth. This puzzled me so much that it occupied my mind for the rest of the afternoon, and at dinner that night

I questioned the professor concerning it. As we were sipping our coffee and smoking our cigars in the little café adjoining the large dining room of the hotel, I explained to the professor my difficulty in this matter, and he answered, I am glad to say, entirely to my satisfaction.

The concentration of interests facilitates trade because it specializes labor, but this specialization of labor in itself means a diminution of the number of laborers, so that the total number of wealth producers is diminished. It often happened, however, as in my day, that improved methods used by the trust would allow of more wealth being produced by ten laborers than would otherwise be produced by twenty, so that the immediate result of discharging the other ten was not shown by any diminution of wealth; but in the long run, and if these other ten had no means of getting work, it was shown, for a continued progress towards trusts caused a continued growth in the number of unemployed, which in its turn caused an increased tax on the working ten to support the idle ten. This also diminished the production of wealth in another way, since it cut down the effective demand for goods. No matter how much the

actual demand for goods may be, it is only the effective demand which acts on trade and therefore stimulates production; for since a manufacturer produces only what he thinks he can sell, the number of buyers affects the production of goods. But to throw men out of work means a decrease in the number of buyers, hence it means a diminution in the production of wealth. And this is true even if there is not actual idleness, for any diminution in the ability to earn diminishes the effective demand, and hence diminishes production; and, indeed, it seems to me clear on the face of it that anything which tends to diminish the number of workers tends to diminish the amount of wealth produced, since wealth is only produced by work.

However, the trusts must not carry all the blame. The monopoly of money was still more to blame, for had our financial system been similar to the one now in existence men would not have been idle. With us, money being restricted to gold and a percentage of credit, industry was restricted; therefore the demand for labor was restricted, therefore men were idle. The specialization of labor is beneficial to the production of wealth, but these benefits will not be lasting unless the

financial system is so regulated as to care for those thrown out by this specialization, which ours was not. Also, as capital and land were treated as private property in the nineteenth century, industry was often diverted into unproductive and wasteful channels, so that monopolies only exaggerated the waste. Nothing of this sort can happen now.

The specialization of labor simply means the putting of the laborer in that position wherein he can produce the most wealth with the least labor, and from this point of view it is easy to understand your system, wherein different kinds of labor are performed by all men at different ages. In my time this could not be carried out because of the marked difference in mental ability; but now, with the immense amount of wealth produced and the stupendous educational opportunities which every one has, these differences have disappeared. And indeed, they had to disappear under such a scientific and just financial system.

This, then, is the vindication of the third law. The monopoly of industry tends to divert it into wasteful channels, while the monopoly of money tends to keep idle all those thrown out by the monopoly of industry. This is

worth thinking over. In my day the benefits from the specialization of labor caused the formation of trusts, while the evils coming from the concentration of power and the increase of the number of unemployed caused the formation of anti-trust legislation. Many men were on each side, but few saw that the money question was below all.

The rest of the time was spent in enjoying the pleasures of the city; the concerts, the theatres, the art galleries, and the museums. It was an enjoyable week, and one I shall not forget.

Early on Monday we started for home in a large aerodrome. We had decided to do this rather than use our own machines, as we could make better time and I felt safer than if I were by myself. The drome that we hired was much like the one that we had taken for our trip to Hudson's Bay, the only difference of any importance being that, while the latter was driven by two propellers, this one had four long, narrow wings — two placed in front of the sustaining surface, one on either side, and two behind — which were flapped vigorously up and down by an electric motor, the flexibility of the construction causing the feathering and thus giving the push to the machine.

This drome was not quite as steady as the other, the flapping of the wings giving a slight rocking motion to the car, but it was better suited to soaring, which feat we performed as often as the upward currents would allow us.

A little way out of Chicago we had a diversion in the shape of a fire. We first perceived it at a height of twelve hundred feet when it was just starting in a barn connected with a large and handsome residence in what I should call the suburbs of Chicago, although your city is practically all suburbs. As I was much interested in the workings of the fire department, we dropped to a lower altitude. Fast though we went, about twenty-five patrolmen in flying machines got there before us, and the one in whose district the fire was, assuming control, all but three or four landed and, with hose and ladders, which by this time had arrived on the scene, went to work. I was puzzled to see no engines, but the professor explained that at every hydrant there was an electric pump below the surface of the street, in a manhole, which performed the service much more effectively than any steam fire engine could do it ; and, with half a dozen well-directed and powerful streams, the fire was soon out.

"I am astonished," said the professor, "you did not have electric pumps in your hydrants. In your thickly settled wholesale districts they would have been more effective than a big, heavy engine that had to be drawn sometimes half a mile, and, with so many electric wires underground, it would have been easy to tap one or more circuits."

I could only smile and say, "What could you expect from nineteenth-century people? What could you expect from barbarians?"

After this incident we rose to three thousand feet, and striking favorable conditions over Lake Michigan, soared all day. At about six o'clock we ran into a bank of clouds which had come up suddenly from the east, and I was glad to turn in and dine with the professor in the tiny cabin forward. When we came on deck again I found, to my delight, that the engineer had taken the drome above the clouds, which were very dense and were swirling along five hundred feet below us. As it was quite cold I put on my warmest outside clothing, and, lighting a cigar, settled myself on the gunwale with my back against the cabin. This machine looked very like a small catboat. It had a tiny cabin forward and a cockpit with seats aft, where the steering gear

was also placed; and had it not been for the great spread of silken surfaces overhead and off on either side, and the movement of the long narrow wings, it would have taken but little effort to imagine oneself sailing on a tranquil sea.

Later in the evening the full moon rose through the clouds, lighting them with a pale, clear light, and making of the depths below us a vast sea of silent, but rolling, surging, and tossing billows.

"If one watches the course of the moon," said the professor, "it is impossible to see or realize that it has any effect upon our movement. It seems so small to us, and is actually so small in comparison with the other bodies of our system, that it would seem absurd that it should move us in any way. Yet we know it does, and from this we learn a lesson. There is no force so small but it produces some effect. At the present time we understand these things better than you do, and therefore do not draw erroneous conclusions."

"To what do you refer?" I asked.

"Why, it was common in your time to deny the existence of a force if its full effect was not visible; your contemporaries were not able

to analyze conditions. In economics, for instance, men denied the truth of a theory because in practice results were different from what the theory would lead one to expect. One could as sensibly deny that the mutual attraction of earth and moon is such as to cause them to revolve about their common centre of gravity because in practice they do not do this. The cause of the error was that in practice forces existed with which the theory, from the very nature of the case, had nothing to do. In a country like yours, for instance, where the doctrine of protection held sway for sixty years, and where wealth was constantly increasing, a man who claimed that protection diminished the production of wealth was considered a fool simply because with protection the country grew richer. The moon pulls the earth this way and that in its movement around its orbit, yet in spite of this the earth moves steadily on its path around the sun; and so your country grew rich, not because of, but in spite of, protection, for the forces which tend to increase wealth, such as immense natural resources, a virgin soil, and hardy, intelligent, and energetic laborers, were greater than the force of protection. The sun is greater than the moon, and therefore

the moon's effect is not apparent. Do you understand the simile? When these forces weakened, that is, when the soil became old, and when the laborer became less intelligent, then the effect of protection became more evident, until a time came when its ill effects were apparent to every one, which happened early in the twentieth century, and then a change of policy was made. In England, because of peculiar conditions of soil and dense population, this lesson was learned in 1846, so that the English were nearly a century ahead of every other nation in this respect."

"It seems to me, professor, that the English were ahead in everything. Many men of my day considered their constitutional monarchy better than our democracy with its gross corruption."

"It is true that the English people were probably the best governed people in the world in your day, but that does not mean that a constitutional monarchy is better than a democracy. Here you are again jumping at conclusions, just like all the men of your time. The English were the best governed people because they were the least uncivilized and had practised the art of government the longest time without foreign interruptions,

which was due chiefly to their being a dense population, all of one blood, and living on an island away from the influence of continental powers. As to a constitutional monarchy, do you suppose your country, made up as it was of foreigners of all kinds and classes, would have existed a day with a king, no matter how limited his power? What king could have reigned over such a mixture of foreign blood as existed in the United States in nineteen hundred? Think of the people, the size of the country, the difference in racial customs, peculiarities and modes of thought which existed side by side, and then tell me what form of government could have handled this stupendous question as well as a democracy, in spite of its shortcomings. You may have the rest of your lifetime to answer this question, for you will need it. No! Democracy is not a failure. Neither was the democracy of the United States of America a failure. It taught the world one of the greatest truths man has ever understood, which is the second law of economy.

"This law does not refer only to the doctrine of protection, which is but a side issue, as it were, but has to do with all governmental interference shown in the constantly increas-

ing laws and statutes aiming to regulate those matters which would naturally regulate themselves. As the great English historian, Henry Thomas Buckle, has well said, 'The most valuable additions to legislation have been enactments destructive of previous legislation,' or, in other words, legislators have helped the world only by repealing the acts of previous legislators.

"Your countrymen thought the only way to benefit a country was to increase its laws, when the very opposite is the truth, so that anarchy, in this respect, is nearer the truth than socialism. The great advantage the English had over the Americans was that the constitutional monarchy was for them a stable government, and change in ministry did not mean that the stability of any policy would be so threatened as to interfere with trade, while democracy did not do this for the Americans. This was not the fault of democracy, however, but it was because this mixed race called Americans was determined to change its policy, regardless of trade, until it got what it wanted. The lesson learned was not what was anticipated; quite the contrary; for while people were trying to benefit themselves by getting the government to legislate for this or

for that, they finally awoke to the fact that the less the government legislated the better they would be; in other words, they discovered the second law of economy, and this great truth never would have been known without that era of superfluous and rank legislation which existed in the nineteenth and twentieth centuries in your country. Especially is this applicable to the tariff, which was constantly being changed to suit private parties.

"Everything must run its course — a policy must be carried to its extreme before its evil results will be evident to most men, and those who can see the truth before the rest are ahead of their day and will suffer accordingly.

"This, then, was the mission of the United States, as the mission of England had been to prove the first law, and as the mission of the Money Republic was to prove the third and fourth laws."

The professor stopped speaking to light a fresh cigar, and for a while we smoked in silence.

"I think, professor, that I shall be exceedingly contented in my new life."

"You ought to be; but as for me, I wish I had been born a hundred years later. Just think how much better things will be then!"

"Ah, yes, I suppose so." Nevertheless, I could not understand the professor, for to me the present scheme is an ideal one and no improvement possible. But after all, everything depends on the point of view, and personal ambition is the basis of contentment. Mutability is an immutable law of nature. I am positive, however, that in the politics of to-day I shall be a conservative and the professor a radical, because I am contented and he is not.

CHAPTER XXII.

IN WHICH THE RELATION BETWEEN THE INCREASE OF POPULATION AND INDUSTRY IS TREATED FROM THE MALTHUSIAN STANDPOINT.

We travelled eastward all night, making good time, and at about ten o'clock the next morning sighted the city of New York. As I had previously expressed to the professor a wish to examine modern shipping, he had arranged to stop at New York and continue the journey to Boston by boat. We accordingly landed from the drome, and put up at a hotel until arrangements could be made for securing a passage on one of the lines of magnificent vessels which ply between New York and Boston.

New York is such an entirely different city from the one I had known that I did not recognize it. There are absolutely no high buildings, except, of course, the towers for aerodromes, no narrow streets, and no congested tenement districts. The population

seemed to me so small — and, indeed, this was true of other cities — that I wondered what had been the actual increase, if any, and whether we could find here a vindication or a denial of the law concerning the increase of population as stated by Malthus. The professor, to whom I naturally went for information, was as ready with an answer to this question as he had been to others I had asked him.

"Is your generation, then, a believer in Malthus?" I asked.

"We believe the law which he laid down; that is, we know that, unchecked, population will always increase faster than the means of substance. The mistake that Malthus made was in supposing that the check which operated in his time must always operate. In this he was wrong, but it does not detract from the great value of his work, which shows more clearly than any other the relation between the increase of population and physical happiness. If it were not for the fact of the tremendous power of the human species to multiply, the race could never have survived the struggle for existence. Now, when the Money Republic was formed, the principles for which it stood were considered by the

greatest thinkers to be those best suited to bring about the greatest production of wealth; and since one of these principles was, as you know, the equal distribution of wealth, they thought that this would also bring human happiness. But in this they were wrong, and they realized it very shortly after the Republic was started.

"At first, with a virgin soil, strong and able workers, and a scientific system of distribution, a tremendous amount of food products was raised, and the population doubled itself in ten years, mainly by births, but partly by immigration. At this point the force of Malthus' argument was seen, and it dawned upon the people that their political economy would not give them physical happiness, or, in other words, prevent all physical suffering so long as the population increased at such a rapid rate. A great many people of your time could not or would not see this fact; but it is undeniable that, unchecked, population will always increase faster than the means of subsistence. Seeing so great an increase in the wealth of different countries during the nineteenth century, many of your contemporaries considered that there was practically, no limit to the production

of wealth; and therefore many ascribed all misery, not to increase of population, but to bad government, which, by the way, was more than half the truth; but what they failed to see was that population depends on the amount of one form of wealth, and, regardless of any increase in all other forms, the quantity of this one form alone determines the increase of population. I refer, of course, to the food products.

"Manufactured articles may exist in absolutely unlimited quantities, but if there is only enough food to support life in one million persons, the population cannot possibly increase beyond this point, even allowing equal distribution, regardless of the total wealth of the country. You may say that these people could exchange their manufactured goods for food, but the above statement includes all food, whether raised at home or imported from abroad.

"Now, wealth is measured in dollars; and since, in your day, there seemed to be no limit to the increase of wealth thus measured, in manufactured articles, personal property, real estate, railroads, steamships, etc., it was assumed that the increase could have no limit. But the true way to measure the wealth

of a country, with a view of finding out what population it will support, is to measure, not in dollars, but in barrels, bushels, pounds, etc., the quantity of food products it can raise or import. The manufactured articles or any other articles — other than food products and the necessary raw material for clothing — which are used for home consumption, play no part in increasing the population, although they increase the wealth; it is only those articles which are exported in exchange for food that enter into the calculation.

"To prevent physical suffering, it is necessary to have, first, equal division of wealth, and second, a stationary population. That is the secret of all the happiness you see here, and it has been the acceptance of that great fact which has changed the nature of the science of political economy, so that instead of treating of methods to produce justice and happiness it treats of the production of wealth pure and simple. Now it must be evident to you that in any given civilization the production of food will be limited both by the area devoted to cultivation and the state of the art; so while it may be impossible to fix a limit to the production of other forms of wealth, this does not hold with

food products, which always require certain definite conditions, as ground space, good soil, light, air, and time to produce, all of which conditions limit the number of harvests in a year, and therefore the quantity which can be taken from any given area. This was not appreciated in your time, or your economists would have taught differently. There were tyrants in your day, men who increased the misery by their teachings; but this has happened in all ages, and the landowner and capitalist had to disappear finally, not because they caused all the misery, but because they — or, rather, the system by which they were supported — increased that misery and interfered with the rapid production of wealth.

"With us, our economy being as perfect as possible, the increase of population led immediately to the study of the principles underlying this increase; and the science of statistics having been developed tremendously since Malthus died, we were able to prove the point he makes. Then the question came which check should be used. Malthus gives as preventive checks, moral restraint, by which he means a life of celibacy, vice, misery, or the fear of misery; and as positive checks, vice, misery, famine, pestilence, and war. The

latter checks kill after birth, the former prevent breeding. It is thus evident that all of these checks imply more or less unhappiness, moral restraint perhaps the least of all; but it was this fact that led Malthus to the conclusion, now known to be erroneous, that there must always be unhappiness caused by physical suffering.

"If Malthus had lived a century later and had used the fuller statistics of that time, he would have found an interesting fact, which is, that marriages amongst the more intelligent classes produced fewer children than those made in the lower classes, one or two children to a family being the average in the upper classes — which would, of course, keep the population stationary — because of the existence of another check which Malthus evidently did not see. This check we call the precautionary check, and the great advance of the science of medicine has rendered it absolutely effective, so that the birth of children is regulated regardless of the gratification of passion; and this is now in force amongst us, and is accepted by all, since it is well known that of all checks to the increase of population this one causes the least unhappiness. The population of the world is less to-day than at your

time, and being wholly civilized it is practically stationary, and there will be no increase, for the relation of population to happiness is understood at last.

"In using the word happiness, you must understand that I mean the happiness which comes from the gratification of the physical appetites necessary to life; the gratification of the mental appetites is entirely independent of this law, and it is here that our unhappiness lies.

"Man is apt to exaggerate the evil which touches him to such an extent that he can see no other, and therefore naturally believes that he would be perfectly happy if the one evil were removed; but the moment this is done there appears another evil not seen before, and this must continue forever. One may ask that if people believed this to be true, why should they attempt to remove the first evil; and the answer is, that after the removal of the first evil, the second almost always strikes another man or another generation. Men are optimistic enough to believe that they can dodge future evils provided they can remove present ones, and this optimism has played a tremendous part in the progress of the human race. One thing more, and then I will not

kind, the supporter of tyrants, the worker of evils; but Knowledge, thou art the light, guiding mankind forward to happiness and plenty. It is ever to thee that man must turn for guidance; it is ever to thee he must look for help; to thee he owes everything that is good in his life. Ever growing brighter and brighter, thy light has for centuries been dissipating the mists of ignorance which have befogged the poor weak brain of man.

The progress of man is measured by the increase of knowledge. Literature, music, the fine arts, and religion are but the superficial embellishments of the age in which they exist, and are moulded by it, but in themselves are passive, and exert no influence on progress. To what, then, do we owe the present great civilization? I answer, To science. Not to great novelists, poets, composers, painters, or priests, but to those who, in obscurity, and perhaps ridiculed by their contemporaries, have spent their life unravelling the complex phenomena of nature, and thereby given to man that greatest of all things — science. Let a people have literature, music, art, and religion as much as you will; without science their condition will never change.

What is that which has weakened superstition, which has moulded religion into respectability, which has overthrown forever the power of kings, which has broken down race hatred, which has destroyed the worst diseases that afflicted the human race? Is it literature? A novel, perhaps, or a poem? Is it music? A symphony, you think? Is it art? A painting or, it may be, a statue? Is it religion? A creed or the life of a priest? Tell me, is it any of these? Is the suit a man wears the cause of his actions? What are all these but the suit worn by the age, the outside garments which show the historian the character of the times? That is all they are, and that is all they ever can be. To know a man you must do more than examine his clothes; you must converse with him and find your way to his brain. The historian must do the same, and the brain of the age is the science of the age.

Progress depends upon two things: first the accumulation, and then the diffusion, of knowledge; and these should go hand in hand to attain the best results. Scepticism leads to investigation, and investigation leads to the accumulation of knowledge. To believe is to remain stationary, to doubt is to progress.

Let every man, then, investigate for himself, adopt systems, not because they are old, but because they are good, not because they exist, but because they should exist. Let every man think for himself and express his thoughts freely. This is the philosophy of the twenty-second century, and its goal is happiness and plenty.

"For the great enemy of knowledge is not error, but inertness. All that we want is discussion, and then we are sure to do well, no matter what our blunders may be. One error conflicts with another, each destroys its opponent, and truth is evolved. This is the course of the human mind; and it is from this point of view that the authors of new ideas, the proposers of new contrivances, and the originators of new heresies, are benefactors of their species. Whether they are right or wrong is the least part of the question. They tend to excite the mind; they open up the faculties; they stimulate us to fresh inquiry; they place old subjects under new aspects; they disturb the public sloth; and they interrupt rudely, but with most salutary effect, that love of routine which, by inducing men to go grovelling on in the ways of their ancestors, stands in the path of every improvement, as a constant, an outlying, and, too often, a fatal obstacle."

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bother you with my economics. Of course, as long as there was war, or any danger of war, the necessity of having a large population was so great to the Anglo-Saxon race that the precautionary check acted with but little power; but after the fall of Russia and the annihilation of the Chinese through famine and pestilence due to the war in China, the Anglo-Saxon race quickly overspread the earth, and war ceased forever at the end of the Chaotic Era. Then the checks to population were but four — precautionary, moral restraint, vice, and misery; and of these the first, which had been growing in power for two centuries, triumphed over the others, and thus Malthus' conclusions were proved wrong. Physical happiness is dependent upon two things — the greatest possible production and equal distribution of wealth, and a small stationary population. That state we have attained. The population of this country now is thirty-nine millions, and for the last fifty years the births have equalled the deaths. The population of the world is only five hundred millions and is also stationary, being composed almost wholly of descendants of the Anglo-Saxon race."

In the afternoon we rode down to the wharf and went on board the steamer, which

really was one of the finest I had ever seen. Getting upon the deck, I was much amazed to see that the frames of the ship had been raised above and met overhead, and the professor told me that between these frames large sheets of a tough hard glass were raised and fastened when the boat was running in a heavy sea, thus making her practically air-tight, so that no matter how high the waves were, promenading on deck was at all times possible, and the glass overhead and on each side allowed a perfect view under all conditions. The height of this canopy of glass above the deck was, I should judge, twenty-five feet, so that all deck houses were under this shelter; and with the glass in place, the boat had the appearance of an enormous glass whaleback, and never suffered the slightest danger from storms. It was a twin-screw vessel driven by electricity generated by a small gas thermopile, and went thirty knots an hour, easily. The staterooms were large, roomy, and well lighted, and the accommodation in every way equal to hotel service. We left New York at sunset and were soon in the Sound; but as the scenery here was very familiar to me I did not stay long on deck, but soon retired to my stateroom. The next morning we were up early, and at seven o'clock we got into Boston.

CHAPTER XXIII.

IN WHICH THE NARRATIVE CLOSES.

Thus ended my journey through your beautiful country — a journey which to me was full of interest and which taught me, more than any other experience I had ever undergone, the changes which have taken place in the last three centuries. When I look back upon my own time my former life seems but a distressing dream, and I see how uncivilized, how brutish, we were in the nineteenth century.

There is little more to be said. The professor returned to his work, and by his aid and the aid of some of his friends my case was put before the public, and it resulted, as you all know, in my being appointed a teacher of medieval history in Howard College.

I wish to express to you all my deepest thanks for the consideration with which I have been treated, and I assure you it has been appreciated. As for myself and my work, I feel that the teaching of the history

of the eighteenth and nineteenth centuries is all that I am capable of doing, and I feel keenly at times the difference between myself and those born in this enlightened age. I realize fully now the monstrous evils which existed in my day, but it is impossible that my nineteenth-century methods of thought should change quickly; that will take time, and I therefore ask forbearance, especially from my students, who, though they are taught by me, must, I am afraid, look upon me more or less as a barbarian. It is my fondest hope that the process of time will eradicate much of this, and that a future will come when I can say, "I am a citizen of the twenty-second century, I am a civilized man." When that comes I shall be extremely happy, because it is the limit of my ambition, and I shall die knowing that I have lived with two generations separated from each other by over two hundred years.

Yes, I have lived; what other man has lived as I have? And life! What a strange affair it is! What a different thing it means to each one of us! Life at best is but a short existence, and in my ignorant times to the majority it was an existence of misery. Ah, truly ignorance is the bane of man-